2007–2008

Saskatchewan

Provincial Budget

Performance Plan

Saskatchewan Environment

Minister's Message

It gives me great pleasure to present Saskatchewan Environment's Performance Plan for 2007-08. Saskatchewan Environment continues to be a leader in achieving the Province's priority of ensuring a green and prosperous economy for generations to come.

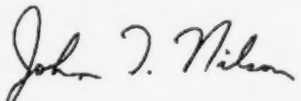
A cornerstone upon which the Government's commitment to a green and prosperous economy is being built is a provincial green strategy. This strategy sets a new standard for environmental and economic planning in our Province. It is a guide that government departments, Crown agencies, businesses, stakeholders and the public can use to build on the strong work already underway to better protect our environment and create sustainable economic development. As part of the green strategy, to ensure government leads by example, Saskatchewan Environment is also piloting and will assist other departments in the creation of sustainability plans that will help all government departments better integrate economic, environmental and community interests in their decisions.

This is a time of change and challenge in many areas of the provincial environment and economy. Responding to climate change requires ongoing diligence and partnership with other governments, other provincial agencies and private industry to develop optimum solutions. The Province's forest industry, particularly the pulp and paper sector, is facing market and industry transformation. Saskatchewan Environment is working with the Forestry Secretariat to provide leadership for the strategic reconfiguration of the Province's forest industry as the sector adapts to changing Canadian and world markets.

The Department continues to work with partner agencies implementing the *Safe Drinking Water Strategy* to ensure safe and sustainable drinking water and wastewater systems. The Department also continues its work in renewing the forest fire fighting fleet and will begin implementing recommendations approved following a Regional Environmental Study of the Great Sand Hills region.

Saskatchewan Environment has applied an integrated risk management approach to its planning over the past two years. In this Performance Plan and subsequent annual reports the public can easily see the logic track in the risks to the environment and achievement of Saskatchewan Environment's objectives, the Department's strategy and programs to manage the risks, the allocation of resources to those programs, and the performance measures used to monitor the effectiveness of those programs.

I am committed to having the Department complete the actions identified in this plan and to report on our progress in the annual report in July 2008. I am confident this plan will help us work together to achieve our objectives.



John T. Nilson, Q.C.
Minister of Environment

Who We Are

The mandate of the Department is to protect and manage Saskatchewan's environment and natural resources, so as to maintain a high level of environmental quality, ensure sustainable development, and provide economic and social benefits for present and future generations.

KEY PROGRAMS AND SERVICES

The Department works to fulfill this mandate by promoting stewardship of the air, land, water, and wild plants and animals. Key responsibilities in relation to natural resources include forest management, wildland fire management, parks, Crown land, and fish and wildlife management. Saskatchewan Environment also has management responsibilities to prevent pollution of provincial air, water and land, which it delivers through activities such as co-ordinating the environmental assessment process, air quality monitoring, protection of drinking water and wastewater management, and activities to control potential impacts of contaminated sites, hazardous goods, landfills and other similar sources of pollution.

Saskatchewan Environment recognizes that effective environmental stewardship requires shared responsibility for the decisions made and actions needed among stakeholders and the public. Saskatchewan Environment uses processes of co-management, partnerships, public involvement, and communications and education to build understanding among individuals and organizations of environmental challenges and to ensure that environmental protection and management activities and decisions are understood.

Some of the legislation administered by Saskatchewan Environment that comprises the major tools for ensuring sustainable development and effective pollution prevention and management throughout the Province include: *The Environmental Assessment Act, The Environmental Management and Protection Act, The Forest Resources Management Act, The Prairie and Forest Fires Act, The Wildlife Act,* and *The Provincial Lands Act.*

DEPARTMENT ORGANIZATION

Programs are delivered through three divisions: the Environmental Management Division, the Conservation Division and the Lands and Forests Division. Each division has a provincial mandate. The Environmental Management Division is responsible for environmental assessment, environmental monitoring, environmental protection and corporate policy and planning. The Conservation Division is responsible for compliance and field services, fish and wildlife and the provincial parks system. The Lands and Forests Division is responsible for Crown lands, fire management and forest protection, forest services and geomatics services.

Three branches also report directly to the Deputy Minister: Communication Services Branch, Finance and Administration Branch and Human Resources Branch. Communications Services Branch delivers strategic communications and encourages information exchange, increased participation in Department programs, public input into policy and program development and co-ordinates communications with other government departments. Finance and Administration Branch provides financial and property management and financial reporting support. Human Resources Branch provides payroll services, organizational development services, human resource consulting services and employee relations.

Saskatchewan Environment currently maintains 52 field offices strategically located in communities throughout the Province and delivers a broad range of services through a staffing level of 1,320.8 full-time equivalents (FTEs).

The services delivered to the public by Saskatchewan Environment during 2005-06 included:

- sold 194,048 hunting licences and 173,421 angling licences;
- issued 454 forest product permits;
- reviewed over 6,000 oil and gas projects (2006 calendar year);
- over 42 million fish/fry stocked in provincial waterbodies (2006 calendar year);
- administered 2,162 cottage leases and 5,047 northern dispositions; and
- hosted 2.5 million visitors at 34 parks (2006 calendar year).

Regulation and protection services included:

- 240 project reviews by Environmental Assessment Branch;
- 799 waterworks and 531 sewage works inspections; and
- 1,268 warnings issued and 1900 prosecutions conducted under various resource protection legislation.

Benefits – The services provided by Saskatchewan Environment support a wide range of benefits to the Province, and are based on the understanding that the quality of the environment, the strength of the economy and the health of Saskatchewan people are inter-dependent on each other.

Health – Clean water to drink, clean air to breath and clean land to support us are the building blocks of healthy societies.

Ecosystem services – Healthy ecosystems provide a multitude of ecological services that benefit humans including water purification, flood control, soil fertility, pollination, seed dispersal, food and other benefits.

Economy – Renewable resource (forestry, wildlife, fisheries, etc.) development provides employment to thousands of Saskatchewan citizens and contributes more than $1 billion a year to our economy.

- Forestry initiatives in northern Saskatchewan create thousands of jobs. Although the pulp and paper sector is facing market and industry transformation, and the softwood lumber dispute has impacted markets, the forest industry remains a major employer and there is great potential for the industry in Saskatchewan.
- Approximately 66 per cent of the firms in Saskatchewan's environmental industry (recycling, consulting, conservation, manufacturing) have increased sales and are positioned for growth in the future, according to the *Report on the Environmental Technology Sector in Western Canada* (November 2003).
- Saskatchewan Environment's sustainable management of renewable resources creates opportunities for a wide range of nature-based tourism including hunting, fishing, camping and outfitting. Tourism activity in sport angling and hunting within the Province generates expenditures of over $307 million per year leading to a Gross Domestic Product of $92 million. Hunting and fishing comprise approximately 22 per cent of all annual tourism expenditures in Saskatchewan. Provincial parks generate a significant impact on the economy. Tourists to provincial parks spend over $121 million annually leading to an impact of over $31 million to the Gross Domestic Product. Many rural communities rely on parks as a market for their local businesses and for employment opportunities.
- Saskatchewan Environment generated total revenues of approximately $53.3 million in 2005-06 from a variety of sources, such as fishing and hunting license sales, forestry permits and dues, land sales and leases, etc.
- The Department's efforts also support sustainable development in the agricultural, mining, oil and gas, energy, and manufacturing sectors, which contribute an estimated $9.8 billion or 29 per cent of Saskatchewan's gross domestic product to the provincial economy.

Society – The health and beauty of Saskatchewan's natural environment contribute to our physical and mental well-being. Our Province's history and economy are intimately linked to the land and nature.

KEY PARTNERS

This section describes Saskatchewan Environment's relationship with organizations that receive significant funding to deliver services critical to achieving the Department's goals.

Saskatchewan Watershed Authority (SWA) (www.swa.ca) is a Treasury Board Crown corporation responsible for protecting, conserving and managing the surface and groundwater resources of the Province. The Deputy Minister of Saskatchewan Environment is the Chair of the Saskatchewan Watershed Authority Board of Directors, and in that role provides guidance to the organization and ensures co-ordination of activities between Saskatchewan Environment and SWA. Saskatchewan Watershed Authority publishes annual performance plans as part of Government's commitment to public accountability. Performance plans outline long-term goals

and objectives the Authority will pursue, as well as the key actions they will take to make progress toward the objectives. Saskatchewan Watershed Authority also publishes an annual report describing their progress over the year. Saskatchewan Environment and SWA work closely with other partners to ensure safety and quality of water sources in the Province.

Goal 4, Objective1, "Comprehensive and Integrated Environmental Strategies," is in part dependent on the success of partnership programs for recycling offered by SARCAN (www.sarcsarcan.ca), a major recipient of third party funding from the Department, as well as independent industry-created organizations like the Saskatchewan Scrap Tire Corporation (www.scraptire.sk.ca) and the Saskatchewan Association of Resource Recovery Corporation (www.usedoilrecycling.com). Saskatchewan Environment administers the legislation governing these organizations. SARCAN operates a network of over 70 depots under exclusive contract with Saskatchewan Environment to provide services of collecting, processing, transporting and marketing to recycle most ready-to-serve beverage containers, and electronic waste (computers, monitors, televisions, printers). The SARCAN contract outlines result-reporting requirements (e.g. recycling rates, employment) for operational and financial results.

Saskatchewan Environment maintains contracts with northern First Nations and the Department of Indian and Northern Affairs for First Nations Northern Works to supply fire suppression crews and community services. Saskatchewan Environment also contracts with the Saskatchewan Wildlife Federation, Ducks Unlimited and the Nature Conservancy of Canada to deliver habitat securement and management programs. Forest Management Agreements with three individual companies guide dues and fees, and sustainable forest management practices with respect to forest harvesting. The Saskatchewan Regional Parks Association and Urban Park Authorities receive funding from Saskatchewan Environment and they independently operate their respective parks. Saskatchewan Environment receives audited financial statements from Wascana Centre Authority in Regina, Pehonan Parkway in Prince Albert and Meewasin Valley Authority in Saskatoon. Redberry Lake World Biosphere Reserve, which receives a grant from the Department, also provides audited financial statements.

For all major contracts, Saskatchewan Environment reserves the right to review and/or audit compliance to the terms and conditions of the contract.

For details of third party funding, please see Saskatchewan Environment's 2007-08 Financial Overview.

KEY CROSS-GOVERNMENT STRATEGIES

Saskatchewan Environment is continuing to lead the development of a Government-wide green strategy, which will provide a foundation for sustainable growth of our Province. It will contribute to Government's commitment to a green and prosperous economy, provide guidance for government departments and agencies to reduce their environmental impact and create new opportunities for co-operation and partnerships among Government, business and the

community. The proposed green strategy will better integrate environmental and economic values by encouraging opportunities that both protect the environment and build the economy. The plan will provide a vision for a generation and will require both long-term change and immediate action. The three long-term goals are:

- Shared Responsibility, Shared Benefits – everyone will participate and share in the responsibility for a society that is sustainable;
- Innovation Toward Sustainability – Saskatchewan will have a sustainable, vibrant economy and a cleaner environment; and
- A Respected and Protected Environment – Saskatchewan will be a national leader in conserving, protecting and restoring the environment for current and future generations.

Saskatchewan Environment will revise its goals, objectives and key actions over time to best align with the green strategy.

Saskatchewan Environment also leads the delivery of the *Safe Drinking Water Strategy* (www.se.gov.sk.ca) in association with Saskatchewan Health, Regional Health Authorities, Saskatchewan Watershed Authority, Saskatchewan Government Relations and Saskatchewan Agriculture and Food. The *Safe Drinking Water Strategy* is a comprehensive plan of action designed to deal with the risks that affect drinking water. The *Safe Drinking Water Strategy* will be the subject of a future decision by Cabinet made in the context of new and emerging issues facing water supplies, water quality and uses, and the many environmental, social and economic factors surrounding water.

Saskatchewan Environment works in partnership with First Nations and Métis organizations to pursue environmental and resource management goals. The Department also co-operates with federal government organizations (including Environment Canada, Department of Fisheries and Oceans, Canadian Nuclear Safety Commission, Canadian Environmental Assessment Agency and Natural Resources Canada) where we share jurisdiction.

STAKEHOLDER CONSULTATIONS

Input from the public and stakeholders on Saskatchewan Environment's strategic direction is very important to us. The 2006-07 Performance Plan was direct mailed, with a letter from the Deputy Minister requesting feedback, to more than 100 of Saskatchewan Environment's key stakeholder groups. The Performance Plan was also placed on Saskatchewan Environment's website and made available to the public at Saskatchewan Environment offices and at various public meetings.

Plan at a Glance

The 2007-08 Performance Plan builds on the 2006-07 Performance Plan that was released to the public in March 2006. The goals and objectives of the plan are to be realized over the long-term, but the key actions listed are to be implemented during the 2007-08 fiscal year. As environmental and sustainable renewable resource management trends and issues change over time, the Performance Plan will evolve to respond to these changes.

The Department will report to the public on progress made on each key action under each goal and objective of this Performance Plan in its 2007-08 Annual Report. We will also report on changes in results of performance measures.

VISION

A high quality environment and healthy ecosystems in perpetuity, which sustain social, health and economic well-being for Saskatchewan citizens

GOAL 1

Reduced risks to clean and healthy ecosystems

***OBJECTIVE 1** – Reduce impacts to surface and groundwater quality*

Performance Measures

- Water Quality Index ratings for lakes
- Water Quality Index ratings for rivers

***OBJECTIVE 2** – Safe and sustainable drinking water and wastewater systems*

Performance Measures

- Per cent of communities with human consumptive waterworks whose operators have received some level of certification
- Per cent of facilities that meet bacteriological guidelines 90 per cent of the time
- Per cent of waterworks (regulated by Saskatchewan Environment) that meet disinfection requirements 90 per cent of the time
- Number of sewage effluent discharges that represent a risk to source waters
- Per cent of survey respondents indicating that they are willing to pay more for their drinking water

- Per cent of survey respondents indicating that they are very or somewhat confident in the quality of their tap water
- Number of system owners that publicly release water quality results

OBJECTIVE 3 – *Reduce risks to the health of people and the environment from degraded air quality*

Performance Measure

- Per cent of time the rating from the Air Quality Index is good to excellent in Regina, Saskatoon, Prince Albert and Swift Current (based on an annual average)

OBJECTIVE 4 – *Reduce risks to people and the environment from contaminated land*

Performance Measures

- Per cent of mines with financial assurances in place
- Per cent of mines with decommissioning and reclamation plans in place
- Per cent of known municipal landfills permitted
- Amount of waste disposed per capita (kilograms per person)

OBJECTIVE 5 – *Healthy ecosystems that support native biological diversity, are stable and capable of self-repair*

Performance Measures

- Number of hectares in the Representative Areas Network
- Per cent of native prairie remaining in the Prairie Ecozone
- Number of hectares of the Provincial forest meeting basic level of forest management (fire suppression, licensed harvest, standards including renewal, consultation)
- Number of hectares of the Provincial forest meeting enhanced level of forest management (basic forest management plus approved Forest Management Plan, Forest Management Effects Monitoring Plan implemented, trust fund established for forest renewal)

GOAL 2

People, resources and property values at risk from wildfires are protected

OBJECTIVE 1 – *Fire suppression targeted to prioritized values at risk*

Performance Measures

- Per cent of fires in the full response zone contained to 10 hectares or less
- Per cent of escaped fires in the full response zone that are larger than 100 hectares

OBJECTIVE 2 – *Increased capacity of individuals, communities, industries and others to take responsibility for reducing fire hazards and wildfires*

Performance Measure

- Per cent of human-caused wildland fires

GOAL 3

Fair opportunity for sustainable use and enjoyment of renewable resources

OBJECTIVE 1 – *Equitable allocation of natural renewable resources*

Performance Measures

- Number of hectares of Crown land under Integrated Land Use Plans
- Per cent of annual allowable cut harvested

OBJECTIVE 2 – *Accessible recreation and educational opportunities on provincial park and Crown resource lands*

Performance Measures

- Number of provincial park visits
- Per cent of survey respondents indicating satisfaction with their park visits

OBJECTIVE 3 – *Increased economic benefits based on sustainable use of natural renewable resources*

Performance Measures

- Economic impact of Saskatchewan's provincial parks
- Economic impact of fishing in Saskatchewan
  - ~ Sport angling
    - Resident
    - Non-resident
  - ~ Commercial fishing
- Economic impact of hunting in Saskatchewan
  - ~ Resident hunting
  - ~ Non-resident hunting

GOAL 4

Shared environmental stewardship

***OBJECTIVE 1** – Comprehensive and integrated environmental strategies*

Performance Measures

- Recycling rates for the following:
  - ~ scrap tires
  - ~ beverage containers
  - ~ pesticide containers
  - ~ used oil
  - ~ paint
  - ~ e-waste

***OBJECTIVE 2** – First Nations and Métis rights and interests are met through co-operative means*

Performance Measure

- Per cent of major issues resolved on an annual basis

***OBJECTIVE 3** – Strengthened and comprehensive compliance strategies*

Performance Measures

- Number of waterworks that do not meet Saskatchewan Environment's minimum treatment requirements (broken down by pre and post regulatory changes)
- Rate of non-compliance with environmental laws and regulations
  - ~ Provincial
  - ~ Fishers
  - ~ Forestry

***OBJECTIVE 4** – Effective and efficient environmental approval and regulatory processes*

Performance Measure

- Provincial ranking with respect to mining industry satisfaction with environmental regulations

2007-08 Financial Overview

Saskatchewan Environment will spend $204.541 million in 2007-08 to deliver its programs and services throughout the Province. The distribution of Department spending by program area is shown below.

2007-08 ESTIMATES	*(in thousands of dollars)*
Central Management and Services	$ 13,310
Accommodation Services	7,006
Compliance and Field Services	15,959
Forest Services	14,144
Fire Management and Forest Protection	84,499
Environmental Protection and Water Management	25,547
Fish, Wildlife and Biodiversity	9,605
Lands	2,891
Parks	19,308
Corporate Policy and Planning	12,272
Total Appropriation	$ 204,541
Capital Acquisitions	(17,720)
Amortization	6,514
Total Expense	$ 193,335
General Revenue Fund Revenues	$ 44,488
Full-Time Equivalent Staff Complement	1,320.8

The aim of the financial plan is to position Saskatchewan Environment to lead development and implementation of a green strategy. This financial plan includes $7.5 million for green and climate change initiatives. The 2007-08 funding level will maintain programs carrying high risk to human health and safety; priority third party grants; and allows Saskatchewan Environment to address key pressures in the mineral exploration industry and also make progress on environment-related public commitments. Renewal of the fire suppression aerial fleet will continue in 2007-08, the third fiscal year in a 10-year plan.

Transfers to third parties for 2007-08 are budgeted as follows:

2007-08 ESTIMATES	*(in thousands of dollars)*
Beverage Container Collection and Recycling System	$ 11,043
Saskatchewan Watershed Authority	7,184
Fish and Wildlife Development Fund	3,830
Meewasin Valley Authority	851
Wakamow Valley Authority	145
Wascana Centre Authority	2,803
Pehonan Parkway (Prince Albert) Authority	154
Swift Current Chinook Parkway	90
Battlefords River Valley Park	73
Weyburn Tatagwa Parkway	40
Regional Parks	75
Support for Environmental Programs	80
Total	$ 26,368

Saskatchewan Environment generates revenues in excess of $57 million annually. This is comprised of $42.46 million to the provincial General Revenue Fund and approximately $14.4 million additional revenues through other funds that are used to benefit the Province in a variety of ways. Revenues generated by Saskatchewan Environment are derived from hunting and angling licences, environmental handling charges, forestry fees and dues, Crown land dispositions, receipts from other governments for recoverable fire suppression costs and park related activities and services. In addition, revenues from Crown land dispositions also benefit the North. Approximately $4.5 million annually accrues to the Northern Revenue Sharing Trust Account from revenue generated from land dispositions in northern Saskatchewan.

Trends and Issues

Saskatchewan Environment undertook a scan of major issues with potential to affect achievement of our goals and objectives, and then completed a residual risk assessment of the issues to help guide our responses. Assessing residual risk results in identification of the risk remaining after consideration of existing measures to reduce potential harm. The graph below illustrates the relative degree of residual risk (likelihood x impact) among the issues. The issues described are very broad and often span a number of the types of risk described in the text of the section following the graph or in the description of each of the Department's objectives beginning on page 21. All of the issues are important, though the response needed may vary between the use of existing operations (operational) and a more multi-faceted, long-term (strategic) response. Responses to issues and risks are described more fully in the Goals, Objectives and Key Actions section.

2006 ENVIRONMENTAL SCAN RISK ANALYSIS

RISKS TO HUMAN HEALTH AND PUBLIC SAFETY

Managing water-related risks remains a high priority for Saskatchewan Environment due to potential human health risks, but also due to the important role which safe drinking water and good quality source water plays in economic growth and ecosystem health.

Although good progress has been made implementing the *Safe Drinking Water Strategy,* remaining challenges that partner agencies need to continue to focus on over the long-term include: ensuring ongoing infrastructure upgrading to meet water quality standards, compliance by small communities, addressing the need for certified operators in small communities, improved and expanded watershed stewardship and source water protection, and addressing and improving wastewater management.

Water supplies are emerging as an important limit on, and driver of, economic development. To help bring greater transparency and public involvement to water management, the Province will continue development and implementation of watershed plans.

In general, the overall air quality in the Province is considered good, though there are some site-specific air quality issues that create potential risks. Potential threats include acid deposition as a result of trans-boundary emissions from outside the Province, particulate matter from wildfires, dust and smoke generated from agricultural sources and toxic emissions from industrial sources.

Public interest is growing in the link between personal health and environmental contaminants, particularly in relation to children's health. Saskatchewan Environment is also concerned about minimizing risks from toxic and hazardous wastes.

Much progress has been made toward cleaning up contaminated sites over the past number of years; however, there are still abandoned mines (both uranium and other) with open shafts, deteriorated buildings or exposed tailings that are in need of remediation.

Meeting the fire protection needs of expanding northern developments and growing northern communities through renewal of the fire fighting air fleet will continue to be a focus of attention for the Department's fire management program. Reducing community fire hazards and increasing fire prevention activities are also key focuses of Department work with communities in the provincial forest.

RISKS TO ECOSYSTEM HEALTH, BIODIVERSITY AND THE ABUNDANCE OF NATURAL RESOURCES

Managing impacts on the Province's ecosystems is important because these systems provide the foundation of our environmental health and much of our economy. Some of the key pressures on provincial ecosystems include: shrinking native landscapes, biodiversity loss, the fragmentation and destruction of natural habitat, climate change and invasive species. The loss of wetlands and riparian areas continues to threaten productive aquatic ecosystems. These risks remain important and are being managed on an ongoing basis.

Considerable uncertainty remains about the impact of climate change on Saskatchewan. Interest in impacts of a changing climate is increasing and raising questions about adaptation strategies. Due largely to our cold climate, a dispersed population and a growing economy, Saskatchewan's emissions are 62 per cent above 1990 levels. The World Summit on Climate Change in Paris in February 2007; Al Gore's climate change campaign, and David Suzuki's cross Canada tour are raising awareness and concern globally, internationally and nationally about climate change.

Saskatchewan Environment continues to be concerned about potential for trans-boundary movement of pollution in sufficient concentrations to affect Saskatchewan ecosystems. The major sources of acid rain for Saskatchewan include the northern Alberta oil sands project, Edmonton-Calgary Urban Corridor and mining operations near the Saskatchewan/Manitoba border. Areas particularly sensitive include shield landscapes and the Great Sand Hills region. It is expected that Alberta's oil sands expansion will further increase the amount of acid rain forming gases in Saskatchewan.

Saskatchewan is in the process of finalizing a bilateral agreement with Canada for 'species at risk' management. There are currently 15 species formally designated as 'at risk' in Saskatchewan, with twice as many species identified as potentially meeting the 'at risk' criterion.

RISKS OF CONFLICT OVER RESOURCE ALLOCATIONS AMONG DIFFERENT USERS

Saskatchewan Environment devotes a large effort to allocating renewable resources and land among different users and in managing competing requests or overlapping uses. The demand for access to provincial renewable natural resources for economic developments, such as commercial fishing, outfitting, ecotourism, and forestry is increasing, and there is growing tension between commercial and recreational use. Saskatchewan Environment's challenge is to satisfy these demands within the sustainable capacity of the resource base.

An ongoing Department priority is to manage Crown resource lands in northern Saskatchewan for multiple uses/benefits for a broad range of stakeholders. In order to ensure environmental considerations are addressed along with economic and social concerns Saskatchewan Environment focuses on land-use planning which engages community and industry interests.

There is greater uncertainty arising from the recent Supreme Court decision confirming Métis Aboriginal rights for subsistence fishing and hunting. The extent of, and conditions on this right are not clear at this time.

Another important area of conflict over resource use is over Crown land disposition. The Government-endorsed sales and lease program administered by Saskatchewan Environment affects 37 million hectares (91 million acres) of Crown resource land. A range of issues is emerging around the purchase of lands, including transparency of the process; valuation of the property; trespass construction on Crown resource land; northern residents wanting opportunity for Crown land ownership, but feeling shut out of the existing process; and northerners wanting greater control over economic development initiatives on Crown resource land in their traditional territories.

The supply of renewable natural resources is subject to cycles of abundance and scarcity due to a number of factors, such as natural population fluctuations, weather, over-harvesting, and other human and natural causes over which Saskatchewan Environment often has limited influence. Most natural fish and wildlife populations are in sufficient numbers to satisfy current subsistence, recreational and commercial users. However, some species or some areas may require specific management to ensure sustainable use. To help address this issue, Saskatchewan Environment is developing a new provincial fish management strategy.

RISKS THAT AFFECT THE ABILITY OF THE PROVINCIAL ECONOMY TO GENERATE JOBS, REVENUE AND GREATER SOCIAL AND ECONOMIC EQUITY

In the short term, the pulp and paper sector of the forest industry is undergoing market and industry transformation. The impact of this on the provincial forest industry is a significant risk faced by the Department in terms of impact on the economy. The recent closure of the Prince Albert pulp and paper mills has been a difficult blow for the community and the industry. Saskatchewan Environment is working with the Forestry Secretariat, community and industry to find ways to address these issues.

Also related to the forest industry are the concerns about the impact of forest fires and forest disease on the industry and local communities. Prioritization of which risks will be addressed is required on an ongoing basis.

High prices for oil and gas have spurred exploration investment, which has increased demand to near an all time high for processing reviews, approvals, and field presence to ensure environmental concerns are addressed. The combined annual value of oil and gas sales for 2006 was approximately $9.3 billion.

Investment in mineral exploration in Saskatchewan has increased nine-fold since 2001. Saskatchewan's exploration expenditures have risen from just under $23 million in 2003, to an estimated record $208 million in 2006. Last year was also a new record for number of active mineral dispositions with more than 12 million hectares under dispositions. This has increased demand on the Department for processing invoices, approvals and inspections. Increased development of the north and associated road development and ongoing human activity will increase environmental compliance and enforcement issues, as well as increase demand on the Department's wildfire fighting services.

RISKS OF REDUCED PUBLIC SUPPORT

The Department recognizes that the following issues will bear importantly upon public and stakeholder perceptions in 2007-08:

- Progress in implementing Government's environmental commitments.
- Initiation of a government-wide green strategy.
- Follow-up to recommendations of the Great Sand Hills Regional Environmental Study.
- Effective management of parks.
- Continued implementation of the Wildfire Management Strategy and Fire Fleet Renewal.
- Ensuring strong enforcement to secure compliance with provincial environmental regulations.
- Clarification of provincial commitments to address climate change.
- Addressing the Provincial Auditor's recommendations with respect to financial, air and water management.

Various environmental protection and allocation processes administered by the Department may pose a drag on the provincial economy by adding costs and delays to economic growth and development opportunities. In general, however, Saskatchewan compares favourably to other Canadian and American jurisdictions in the level of co-operation and efficiency of its environmental approval processes.

Saskatchewan's parks provide important economic, environmental, social and cultural values to the people of the Province. Parks are key economic contributors to the Province's tourism industry, and offer rural economic opportunities. Management of the provincial parks system faces issues such as aging infrastructure, changing demands from an aging demographic, and increasing costs for utilities, landfills, and water treatment.

In the parks program, there is ongoing public pressure to ensure acceptable levels of service and capital renewal. Readily available access to provincial parks remains a public expectation. The challenge for Saskatchewan Environment is to maintain the natural and heritage values of parks while meeting visitor demands for enhanced services. Saskatchewan Environment will be implementing a long-term plan for provincial parks and cottage developments.

Future forest fire management challenges include integration of landscape management to mitigate wildland fire, improving fire suppression capacity of municipalities and meeting the fire protection needs of the expanding developments and communities in northern Saskatchewan to ensure the safety of individuals, communities and businesses in the forest. It is important for Saskatchewan Environment to ensure those who live and work in the forest understand how the changes may affect them and what they can do to protect themselves from fire.

RISKS THAT AFFECT ACHIEVEMENT OF THE PLAN

The unpredictable nature of natural disturbances to the environment can result in unplanned expenditures for the Department. Of most significance is fire suppression; however, outbreaks of wildlife diseases such as Chronic Wasting Disease or the invasion of noxious exotic species, such as zebra mussels, can also require a shift in expenditures which cannot be anticipated and are not reflected in the Department's Performance Plan.

In a public attitudes survey (August 2006) over 75 per cent of provincial respondents indicated it was highly important that the provincial government protect our natural environment. Residents also agree that Government should lead the way in building a sustainable society and support innovation in green technology and business. Saskatchewan Environment is gradually moving to greater shared responsibility for environmental management among the regulated community, non-government organizations and individuals. If a high percentage of individuals continue to feel the provincial government is primarily responsible for environmental stewardship, it will be a challenge to make progress on our goal of shared responsibility for environmental stewardship.

Accelerated development of Saskatchewan's resource-based economy carries significant environmental implications. Environmental management systems need to keep pace preventing damage up front rather than face the high costs of cleaning-up after. Failure to keep environmental management abreast of economic development could ultimately result in loss of Saskatchewan's strategic advantage of a pristine environment. A balanced approach can keep our Province clean and capture the opportunities to develop our resources as well as our environment-related industry.

Changes from 2006-07 Performance Plan

For 2007-08, Saskatchewan Environment will continue its gradual shift in direction to place greater emphasis on self-compliance and shared responsibility. There are no significant changes to our goals and objectives in the 2007-08 plan. However, the Department continues to develop a new green strategy for the Province, which will provide a vision for improved integration of economic, social and environmental values. The Department is also reviewing its performance management system. When complete, the proposed green strategy and the performance management review will result in further changes to Saskatchewan Environment's goals, objectives and performance measures. For 2007-08, the Department's responses to the challenges and opportunities noted in the scan for issues and trends are reflected throughout the strategic plan in the key actions. Each key action has been reviewed to ensure consistency with strategic direction and updated, deleted, or new ones added. Key actions are added to reflect the refinement of the Department's allocation of resources to key risk issues that the Department is responsible to manage.

In this year's plan, Saskatchewan Environment has improved the description under each objective by providing a clearer logic track that identifies the key risks affecting each objective, the Department's strategic approach to manage the risks and make progress toward the objective, and the Department's programs that contribute directly and indirectly to managing the risks.

The Department reviews its performance measures, assesses weaknesses and works to improve its measurement set each year. As a result of this assessment, two performance measures have been moved from one objective to another, two performance measures have been enhanced, five new measures have been added and four measures have been removed.

Saskatchewan Environment is gradually working to improve performance measures for all objectives. The 2007-08 Plan has at least one performance measure for each objective in the plan and where possible, trend information has been added. There are now two performance measures that are benchmarked with the rest of Canada.

Goals, Objectives, Actions and Measures

This section details the Department's Performance Plan for 2007-08 to make progress toward our vision of a high quality environment and healthy ecosystems in perpetuity that sustain social, health and economic well-being for Saskatchewan citizens. Under each goal, a number of objectives have been established that describe medium-term conditions necessary for progress towards the broader goal statement. For each objective, a number of key actions are proposed to be completed in 2007-08. They are the means for making progress toward the objectives for this year. A set of performance measures has been developed to gauge progress towards meeting each objective. The text at the beginning of each objective describes why the objective is important, some of the risks and issues relating to that objective, as well as the programs that both directly and indirectly apply to that objective. The programs correspond to budget estimate categories. Together, these sections allow readers a clear picture of objectives, risks, the Department's strategic approach to pursue each objective and the specific high profile actions planned for this year, how the Department allocates its resources to each program, and how the Department measures progress.

In 2005-06, Saskatchewan Environment generated revenue of approximately $53 million and the Department spent approximately $146 million. A key factor with significant impact on the Department's operating costs and performance results is weather conditions. Hot dry weather increases the likelihood and severity of forest fires thereby impacting both performance measurement results (per cent of fires in the full response zone contained to 10 hectares or less; per cent of escaped fires in the full response zone larger than 100 hectares) and overall program costs. Weather also affects the number and satisfaction levels of park visitors, which in turn impacts revenue to the Department and economic impact of nature-based tourism in the Province. Key factors influencing costs and performance results in relation to each objective are also described within each objective as well as the performance measures.

The following principles guide all of the Department's activities: Ecosystem Approach, Prevention, Risk Management, Precaution, Shared Responsibility, Integration, Stewardship, Full Information on Costs, and Accountability.

GOAL 1

Reduced risks to clean and healthy ecosystems

***OBJECTIVE 1** – Reduce impacts to surface and groundwater quality*

Saskatchewan Environment's water program mitigates risks to drinking water and surface water, and thereby protects the health of Saskatchewan's citizens served by public water supplies. Quality water is essential for public health and is also vital to our economic, social and environmental well-being. In terms of economic risks, the water program ensures that water for commerce and industry is available and reliable. Environmental risks such as pollution to surface water and groundwater are managed to avoid loss of quality aquatic habitat, shifts in aquatic ecological balances and loss or reduction of recreation benefits.

Current risks and issues impacting achievement of this objective include:

- a growing demand for water;
- pollution to surface water and groundwater sources, such as municipal and industrial wastewater discharges, can result in loss of water quality and productive aquatic ecosystems; and
- climate change may result in a greater variability in quantity of water.

Saskatchewan Environment's strategy to address the above risks is to increase work on wastewater and surface water management, continue programs that establish water quality standards and guidelines for both surface and groundwater, promote pollution prevention and safe use, monitor water quality, and regulate water and sewage discharges from large point sources such as municipalities and industrial users.

The following programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support

Water Program

Indirect Support

Communications Services Program

Compliance Program

Field Services Program

The water program has three main components that include the management of drinking water, wastewater, and water use and protection. The water use and protection component operates through development and application of guidelines for protection of aquatic life, agricultural, commercial and industrial and recreational water uses. The program also incorporates water quality monitoring and reporting to build a full-circle, integrated approach for all water users.

Saskatchewan Watershed Authority (SWA) was created to develop new approaches to address water use and protection concerns. Saskatchewan Watershed Authority developed a provincial Water Conservation Plan (November 2006) and is working with stakeholders to help develop public stewardship programs for many of the Province's watersheds.

Saskatchewan Environment has two outcome performance measures for this objective that directly reflect the water quality of major lakes and rivers within the Province. This measure focuses on informing the public as to the quality of key water sources that support human consumption.

Key Actions for 2007-08

- Lead development of the federal/provincial Municipal Wastewater Effluents Project.
- Contribute to the development of an integrated water management strategy for the Province.
- Monitor water quality and ensure the public has access to information on water quality.

What are we measuring?

Water Quality Index (WQI) ratings for lakes

Progress to date

Waterbody	WQI	Year
Good Spirit Lake	Good	2004
Jackfish Lake	Marginal	2004
Murray Lake	Fair	2004

[2004 is latest data available]

[Data Source: Saskatchewan Watershed Authority and Saskatchewan Environment surface water quality databases]

What are we measuring?

Water Quality Index ratings for rivers

Progress to date

Excellent
Churchill River

Good to Excellent
Assiniboine River, Beaver River, North Saskatchewan River, Saskatchewan River, South Saskatchewan River

Fair to Good
Qu'Appelle River, Souris River

Poor to Fair
Moose Jaw River

[2005; latest data available]

[Data Source: Saskatchewan Watershed Authority and Saskatchewan Environment surface water quality databases]

The Water Quality Index (WQI) ratings for rivers are applicable as of March 31, 2005.

There are two locations along the Qu'Appelle River where the quality would be considered marginal for protection of aquatic life. The river ranges from fair to excellent for livestock watering and irrigation purposes.

Major water quality concerns along the Moose Jaw River stem from nutrients and suspended solids from man-made sources (wastewater discharge and agricultural activities) and natural variation (flow, run-off and snow melt).

The Water Quality Index, which is based on the national index developed by the Canadian Council of Ministers of the Environment, is an overall measure of the quality of water for specific uses such as the protection of aquatic life, livestock watering and recreation. The index is a composite of measurements of different chemicals and organisms in the water at safe levels for a particular use. It is a good measure of the quality of surface or groundwater. The nine rivers currently monitored are: Qu'Appelle, South Saskatchewan, North Saskatchewan, Saskatchewan, Souris, Assiniboine, Churchill, Beaver and Moose Jaw.

The Department has little direct control over the results of this broad measure of water quality. Samples are collected by industries and municipalities as well as by staff of Saskatchewan Environment and other agencies.

The assessment of all watersheds using the WQI is a long-term project. The WQI rating in the Qu'Appelle River is expected to improve over the long-term as a result of watershed planning efforts led by SWA, as well as improvements to Regina and Moose Jaw sewage treatment.

***OBJECTIVE 2** – Safe and sustainable drinking water and wastewater systems*

High quality drinking water is important to protect human health and is essential in helping to ensure sustainable social and economic growth. Many industries in Saskatchewan depend on a reliable source of good quality water. Careful allocation of water use, attention to water use efficiency and proper waste management must be maintained to ensure ongoing productivity and further growth. According to surveys of Saskatchewan residents, drinking water quality is the most important environmental issue to the public.

Major cost drivers for this objective include: requirements for field inspections, the need to address water contamination incidents and associated testing costs, infrastructure-related demands and unexpected failures, the need to track and manage the application of emerging water quality related standards, and natural events (flood or drought) or incidents affecting source water quality. Communities without a good quality water supply and proper wastewater management are not able to attract businesses or, in some cases, residential development. Poor water quality can result in increased health care costs and increase costs for producing processed water. Other elements affecting success in achieving this objective relate to the timing of decisions by project proponents, construction delays and significant weather events affecting construction, all of which may impact progress on infrastructure improvements.

Current risks and issues impacting achievement of this objective include:

- inability of some municipalities to pay for necessary upgrades to infrastructure to meet standards;
- inability of some communities to train, attract, and retain certified water operators; and
- increasing demand for drinking water.

Saskatchewan Environment's strategy to address the above risks is guided by the *Safe Drinking Water Strategy.* It seeks to protect public health and economic productivity by directly monitoring, assessing and addressing potential threats to drinking water safety using a threat severity-priority approach. Public education, information and program transparency (e.g., www.saskh2o.ca postings) are used to build trust and understanding of the significance of clean, reliable and safe water.

The following programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support	Indirect Support
Water Program	Communications Services Program
	Compliance Program
	Field Services Program

The water program has three main components: the management of drinking water, wastewater, and water resource use-protection. The drinking water and wastewater management components operate on a regulatory process of guidelines and standards development, permitting, inspecting, monitoring and when necessary compliance/enforcement follow-up.

Saskatchewan Environment has seven output measures for this objective. This objective and the measures focus on ensuring and determining that: waterworks systems and operations provide safe and sustainable water; the drinking water regulatory system is clear and effective; high quality source waters are protected now and into the future, and that consumers trust and value their drinking water and the operations which produce it.

Key Actions for 2007-08

- Support ongoing achievement of and compliance with Operator Certification and Operator Continuing Education requirements.
- Implement strategies to aid small communities to ensure the provision of safe water by affordable and publicly acceptable means.
- Inspect waterworks across the Province at a frequency of up to two inspections at each surface water and priority groundwater waterworks (based on compliance – minimum one inspection per year) and one inspection at every other regulated waterworks. Supplemental education and prevention activities will be delivered during inspections to help ensure waterworks meet operational and treatment requirements. Inspection protocols will be kept abreast of developments in water treatment technologies.
- Complete annual sewage works inspections to identify which systems represent a risk to source water quality and to ensure sewage works meet operational and treatment requirements.

What are we measuring?

Per cent of communities with human consumptive waterworks whose operators have received some level of certification

Progress to date

54.3%
[September 2004]

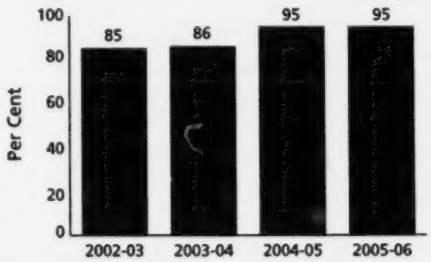
96.8%
[March 2006; latest data available]

[Data Source: Operator Certification Board database]

What are we measuring?

Per cent of facilities that meet bacteriological guidelines 90 per cent of the time

Progress to date

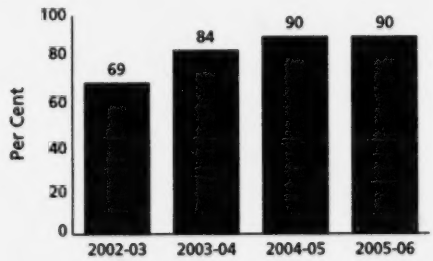


[Data Source: Saskatchewan Environment, Environmental Management System Database]

What are we measuring?

Per cent of waterworks (regulated by Saskatchewan Environment) that meet disinfection requirements 90 per cent of the time

Progress to date



[Data Source: Saskatchewan Environment, Environmental Management System Database]

What are we measuring?

Number of sewage effluent discharges that represent a risk to source waters

Progress to date

93

[March 2005]

85

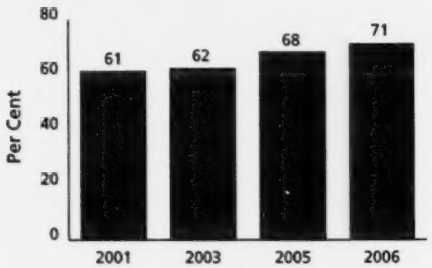
[March 2006; latest data available]

[Data Source: Saskatchewan Environment Database]

What are we measuring?

Per cent of survey respondents indicating that they are willing to pay more for their drinking water

Progress to date

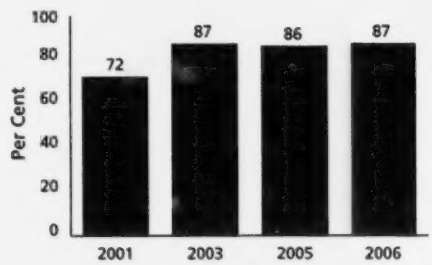


[Data Source: Saskatchewan Environment and Omnibus Polling Results]

What are we measuring?

Per cent of survey respondents indicating that they are very or somewhat confident in the quality of their tap water

Progress to date

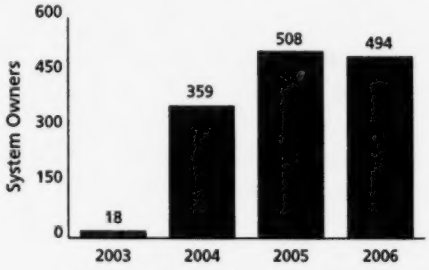


[Data Source: Saskatchewan Environment and Omnibus Polling Results]

What are we measuring?

Number of system owners that publicly release water quality results

Progress to date



[Data Source: Saskatchewan Environment, Environmental Management system Databases]

The bacteriological quality of water and compliance with disinfection requirements are key components of ensuring safe drinking water because of the potential for short-term (relatively immediate) health effects in the event of contamination. The greater the number of communities with certified operators, the greater the safety of the water supply since operator knowledge will influence the quality of water produced. The number of sewage effluent discharges that represent a risk to source waters is a good measure of the degree of protection afforded by wastewater treatment systems presently in place. The Department develops and delivers regulatory programs, guidelines and protocols and has a direct influence on these measures.

The public willingness to pay more for water is a measure of how much the public values safe drinking water provided by means of municipal or public treatment and supply works. Public confidence in drinking water quality is a good measure of the public trust in the ability of waterworks owners and governments to deal with the challenges of providing safe water. Since these are measured through public polling, results could be influenced by events outside the Province. The number of system owners that publicly release water quality results is a good measure of the acceptance of waterworks owners in recognizing their responsibility for safety of water and education of the public. The Government has a high level of influence in the achievement of this requirement through regulations.

***OBJECTIVE 3** – Reduce risks to the health of people and the environment from degraded air quality*

Clean air is essential for human health and public safety. Due to the low provincial population and moderate level of industrial activity, the air quality in Saskatchewan is generally good. Smog is rare, but acid precipitation from industry in Alberta is a potential problem, especially for parts of northern Saskatchewan. Acid deposition has already been predicted in northwest Saskatchewan. Airborne particulates, such as blowing dust and smoke from forest or stubble fires, cause the most noticeable air pollution concern. Other more localized issues are associated with intensive livestock operations, upstream petroleum industry operations, small manufacturing and processing plant emissions. There is also concern about the increasing levels of greenhouse gas emissions in the Province.

Key factors that can impact air quality include economic growth in Saskatchewan, neighbouring provinces and states that can result in increased trans-boundary drift of air pollutants, and weather and drought conditions that can result in increased forest fire activity and crop residue burning, both of which contribute to airborne particulates.

Current risks and issues impacting achievement of this objective include:

- risk of increased acid rain emissions as heavy oil development expands in Alberta and Saskatchewan;
- risk of additional site-specific air quality challenges in rural Saskatchewan from oil and gas activities, intensive livestock operations and stubble burning; and
- increasing levels of greenhouse gas emissions in the Province.

Saskatchewan Environment's strategy to address the above risks is to:

- monitor acidification rates in northern lakes and in the Great Sand Hills area;
- encourage measures to be taken to reduce air emissions at source at heavy oil and other developments;
- promote the concept of regional airshed associations involving industry and stakeholders in air monitoring programs; and
- continue to encourage the federal government to resolve how greenhouse gas emissions will be reduced; and support the Province's clean technology energy initiatives (ethanol, wind power, etc.).

The following programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support	Indirect Support
Air Quality Management Program	Compliance Program
	Environmental Assessment Program
	Communication Services Program
	Ecological Monitoring and Assessment Program

Saskatchewan Environment is responsible for administering *The Clean Air Act,* which regulates most major air emissions in the Province. Through the air quality management program, the Department manages these issues by maintaining standards and guidelines, promoting pollution controls and reductions, responding to emerging risks and threats, regulating emissions from large point sources such as utilities, industrial sites and mining operations, and monitoring and assessing air quality. Efforts are also focussed on reducing greenhouse gas emissions from electricity production through greater use of green energy sources such as wind, natural gas and ethanol in gasoline. Businesses and individuals are encouraged to be more energy conscious and efficient.

Saskatchewan has one outcome measure for this objective that looks at the air quality at the sources being monitored. Good air quality in these locations will lead to reduce risk to the environment and human health.

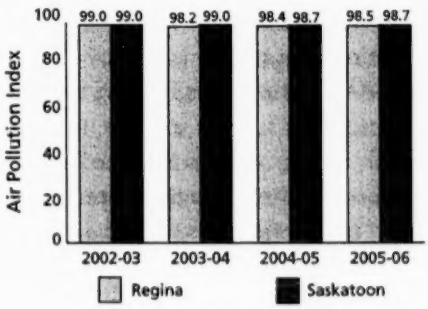
Key Actions for 2007-08

- Advance the Province's airshed management program.
- Use long-range transport modeling to determine projected levels of acid deposition on sensitive ecosystems.
- Establish an air quality information management and reporting system including a public website that reports air quality in Regina, Saskatoon, Prince Albert and Swift Current.
- Work with Saskatchewan Industry and Resources on climate change issues and to monitor federal legislative proposals that would impact Saskatchewan.

What are we measuring?

Per cent of time the rating from the Air Quality Index is good to excellent in Regina, Saskatoon, Prince Albert and Swift Current (based on an annual average)

Progress to date



[Data Source: Saskatchewan Environment, Environmental Protection Branch]

(Prince Albert and Swift Current – under development)

The air pollution index is used to monitor long-term trends in air quality. The index is a composite of data about measurements of chemicals and particulates in the air. Maintaining urban air quality is an important part of meeting this objective. Saskatchewan Environment has established monitoring stations in Regina, Saskatoon, Prince Albert and Swift Current. The first full year of monitoring data for Prince Albert is included above. Currently, there is only limited data available to assess trends in Swift Current and results will be reported in future periods. Over the longer term, Saskatchewan Environment will also need to better define rural air quality impacts. The Department has little direct control over the results of this broad measure of air quality because many sources of pollution affecting air quality here originate elsewhere.

***OBJECTIVE 4** – Reduce risks to people and the environment from contaminated land*

Clean land is essential for human health and safe production of food. In addition, there are many economic, recreational and social benefits of clean land. A range of human activities affects the quality of land and soils. Uncontrolled or accidental releases of pollutants pose risks to residents and the environment. As the population continues to urbanize (nearly two-thirds of the provincial population now live in urban areas, compared to one-half in the early 1970's) increasing pressures can be expected from municipalities for waste management initiatives.

Most of the major land use issues have been identified and steps are being taken to address them. Better agriculture and forest management practices are being adopted, contaminated sites and abandoned mines are being assessed and/or cleaned-up, and the mining and petroleum industries are closely regulated to ensure they leave no long-term environmental effects.

Current risks and issues impacting achievement of this objective include:

- contaminated "orphan" sites for which responsible parties cannot be located or owners are unable to finance the remediation of the properties; and
- spills or releases of contaminants are an ongoing reality, and will increase as industrial activity increases.

Saskatchewan Environment's strategy to address these risks is to set standards and guidelines for industry and municipalities; monitor and assess waste management practices; respond to risks and threats; regulate disposal from large point sources such as municipalities, utilities, large industrial emitters and mining operations; and support waste minimization.

The following programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support

Contaminated Site and Hazardous Substances/Waste Dangerous Goods Management Program

Industrial Mine and Mill Environmental Protection Program

Solid Waste Management Program

Indirect Support

Communications Services Program

Compliance Program

Field Services Program

Environmental Assessment Program

The Contaminated Site and Hazardous Substances/Waste Dangerous Goods Management Program ensures that hazardous substances and waste dangerous goods including pesticides, petroleum products, industrial chemicals, toxic substances and waste products of these substances are properly managed and do not present a safety risk to humans. The Industrial Mine and Mill Environmental Protection Program ensures that the environment and human health are protected from possible adverse effects from industrial developments though regulation of all industrial, mining, and milling activities in the Province. The Solid Waste Management Program aims to limit high-risk contaminants that can enter the environment at landfill sites, and encourages waste minimization.

Saskatchewan Environment uses two output measures that report on minimization of contamination impact on land. These measure the per cent of mines with financial assurances and the per cent of mines with reclamation and decommissioning plans. The Department has added two additional performance measures with respect to the per cent of known municipal landfills permitted throughout the province, and amount of waste disposed per capita.

Key Actions for 2007-08

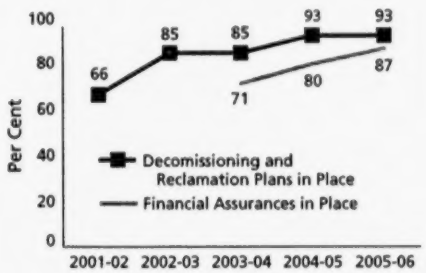
- Oversee clean-up of priority contaminated sites.
- Complete a provincial strategy for the management of municipal solid waste.
- Monitor uranium mine sites for public safety and regulatory compliance.

What are we measuring?

Per cent of mines with financial assurances in place

Per cent of mines with decommissioning and reclamation plans in place

Progress to date

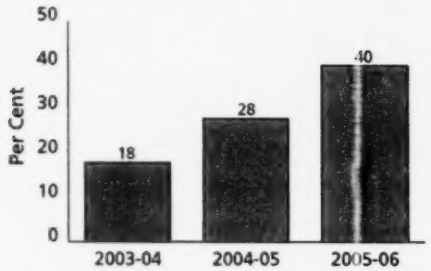


[Data Source: Saskatchewan Environment data and mining company annual reports]

What are we measuring?

Per cent of known municipal landfills permitted

Progress to date



[Data Source: Saskatchewan Environment]

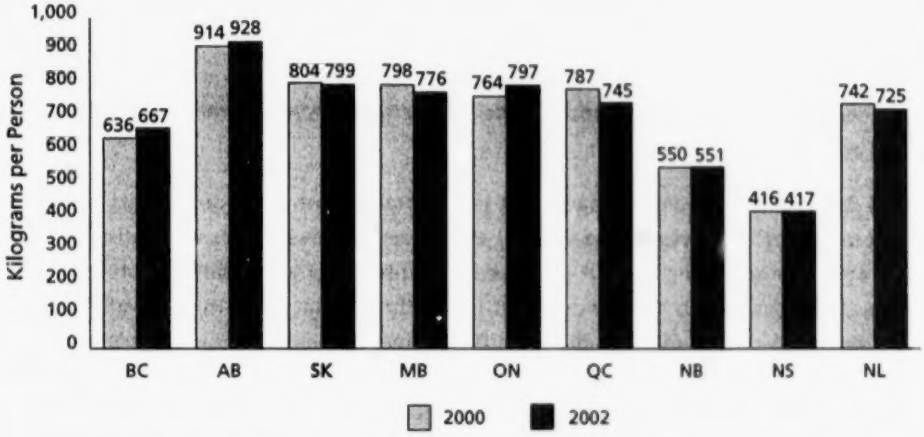
What are we measuring?

Amount of waste disposed per capita (kilograms per person)

Progress to date

See the graph below

AMOUNT OF WASTE DISPOSAL PER CAPITA BY PROVINCE



[Data Source: Statistics Canada (reported every two years, with two-year lag time)
No data available for Prince Edward Island, Yukon, Northwest Territories or Nunavut

Properly reclaimed mining sites impact the clean land objective directly by returning the site to its original natural state. Mining companies are required to have decommissioning plans and financial assurances in place to ensure that they do not place a burden on Saskatchewan taxpayers should they fail to meet their decommissioning and reclamation obligations. Decommissioning and reclamation plans ensure environmental protection at the end of the mine's life. The Department directly regulates the environmental aspects of mining operations and therefore has a direct influence over the measurement results.

Properly permitted landfills impact the clean land objective directly by ensuring that the site is adhering to good management policies. By reporting on the percentage of permitted landfills, we are encouraging these operations to continue to adhere to requirements. In addition, it is expected that this reporting will increase the awareness of non-permitted operations and encourage them to get their operations permitted under the Municipal Refuse Management Regulations. The Department has indirect influence over the regulation of existing landfills, as these are typically a municipal responsibility.

Waste disposed per capita is an indication of the success of diverting waste from landfills, and reducing the risk of contaminated soil and groundwater from landfills. There are many factors affecting the amount of waste disposed; some factors are within the Department's influence and many factors are outside of the Department's influence, such as economic growth, which tends to result in increased waste.

OBJECTIVE 5 – *Healthy ecosystems that support native biological diversity are stable and capable of self-repair*

Ecosystem-based management is an approach that incorporates economic, social and environmental considerations in managing natural resources. Biodiversity is a term used to refer to the variety of species and the ecological processes of which they are a part. Biodiversity is essential for preserving the health and diversity of living things that form the web of life on earth, including human life. Loss of ecological health can mean a loss of the system's ability to self-repair and a cycle of continuing deterioration. Such deterioration can reduce, or in some cases eliminate, the goods and services that an ecosystem provides, such as water purification or flood control, pest control, medicinal plants and food, such as fish. Replacement of these services or restoration of the ecosystem is often very costly and in the worst cases, the service or goods may be lost from an area entirely. Due to human activity, some ecosystems and specific fauna and flora within them are at risk or have been lost. It is important that human activities do not further reduce ecosystem health. Adopting an ecosystem-based approach to resource management and environmental protection will help to ensure ecological sustainability.

Current risks and issues impacting achievement of this objective include:

- unprecedented demands for resource extraction (oil, gas, mining);
- threats of invasive exotic species (both aquatic and terrestrial) from increased trade, travel and climate change, especially those potentially affecting human health (avian flu, west nile, chronic wasting disease);
- climate change could affect the type and amount of habitat found in the Province;
- increasing pressure to intensify agricultural production through activities such as intensive livestock operations (ILOs) and irrigation; and
- no assessment or tracking system is in place by which to reliably report on the status of ecosystems in the Prairie Ecozone.

Saskatchewan Environment's strategy to address the above risks is to strive to balance protection of key environmental and natural resource values with support for economic development by managing extraction and development of resources in a sustainable manner; acquiring data and information on habitat characteristics and functioning, developing modeling applications with information that allows us to manage impacts of development on habitat and biodiversity and set sustainable development targets; requiring environmental assessments from developers; developing climate change adaptation strategies; monitoring ecosystem health; and developing surveillance programs for invasive species (Gypsy moth, mountain pine beetle, Dutch Elm Disease, etc.).

The following programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support

Oil and Gas/Minerals Program

Provincial Forest Inventory and Analysis Program

Standards for Forest Practices and Accountability Program

Renewal of not sufficiently regenerated (NSR) Lands Program

Integrated Environmental Monitoring Program

Strategic Environmental Studies Program

Ecosystem Assessment Program

Climate Change Initiatives

Indirect Support

Environmental Assessment Program

Forest Insect and Disease Program

Air Quality Management Program

Crown Land Disposition Program

Sustainable Fisheries Management Program

Land Management Program

Landscape Planning and Management Program

Ecological Health Assessment Program

Fire Management and Forest Protection Program

Most of the direct programs identified above include the development of ecosystem management policies, enhancement of scientific information and databases through monitoring and surveys, and resource stewardship programs and plans, such as the Biodiversity Action Plan, Representative Areas Network (RAN) and Species at Risk.

Key factors that have an impact on measurement results include price fluctuations in resource and agricultural commodities, and public environmental concerns. Typically, when the resource and agriculture industries are experiencing higher prices there is an increased demand to use natural areas for economic development.

Saskatchewan Environment now has four output measures for this objective. The RAN program seeks to secure areas representative of each ecoregion in the Province. The RAN measure is important because land in the RAN is protected for the future and it also serves as a benchmark to monitor changes across the broader landscape. The second measure is an indicator of the decline of native prairie in the Prairie Ecozone, Saskatchewan's most altered landscape. The measure is important to track changes to the health and status of the ecosystem; however, it does not reflect the quality of condition of the prairie or how it is dispersed across the Province. Saskatchewan Environment has very limited control over this measure because most of the natural prairie is privately owned and is affected by broader socio-economic or environmental issues. Several organizations are taking action in partnership with Saskatchewan Environment to reduce the rate of decline. Saskatchewan Environment has two output measures for forest ecosystems that are indicators of the forest industry's ability to ensure that use of this land is sustainable and risks to the ecosystem are reduced through deliberate forest management techniques.

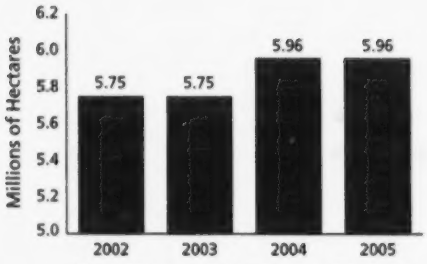
Key Actions for 2007-08

- Respond to environmental issues associated with the continued growth of the oil and natural gas industry and the increased mineral exploration associated with projected growth in the uranium and diamond industry in the Province.
- Work to designate and manage additional protected areas that are representative of the Province's terrestrial and aquatic ecosystems.
- Begin to develop an ecological classification survey, monitoring program and management standards for the Prairie Ecozone.
- Improve our ability to detect, prioritize, and control invasive forest insects and diseases that may impact biodiversity values of the forest.
- Work with municipalities and the Saskatchewan Dutch Elm Disease Association in cost-sharing implementation of Dutch Elm Disease control strategies.
- Ensure renewal of harvested areas within the provincial forests. Forest Service to plant approximately two million trees through the not sufficiently regenerated (NSR) backlog lands program.

What are we measuring?

Number of hectares in the Representative Areas Network

Progress to date



[Data Source: Saskatchewan Environment]

What are we measuring?

Per cent of native prairie remaining in the Prairie Ecozone

Progress to date

21.5%

[2001; latest data available]

[Data Source: Hammermeister, Gauthier and McGovern, Report, 2001]

What are we measuring?

Number of hectares of the Provincial forest meeting basic level of forest management (fire suppression, licensed harvest, standards including renewal, consultation)

Progress to date

5,393,984 hectares

[2005-06; latest data available]

[Data Source: Saskatchewan Environment, Forest Service Branch]

What are we measuring?

Number of hectares of the Provincial forest meeting enhanced level of forest management (basic forest management plus approved Forest Management Plan, Forest Management Effects Monitoring Plan implemented, trust fund established for forest renewal)

Progress to date

7,312,260 hectares

[2005-06; latest data available]

[Data Source: Saskatchewan Environment, Forest Service Branch]

Adequate amount and distribution of natural/native habitats under RAN ensures that terrestrial and aquatic ecosystems persist into the future and serve as a benchmark against which we can monitor the effectiveness of environmental stewardship across the broader landscape.

Natural landscapes with representative fauna and flora unique to a given natural ecoregion are selected by the Department for designation as a representative ecological site for inclusion in the RAN. All contributing lands are counted, including those of Government and non-government partners. The RAN program is striving to ensure an adequate percentage of representation of each natural ecoregion in the Province.

Saskatchewan Environment has direct site designating and management influence over this measure. However, the need to consult with local interests may result in a slower rate of progress.

The Prairie Ecozone is the greatest 'at risk' ecozone within the Province. The amount of native prairie remaining uncultivated is a reflection of the ability of that ecosystem to sustain its native flora and fauna. The measure is an indicator of long-term health. It is anticipated that measurement of native prairie remaining will only be taken every five to ten years.

Saskatchewan Environment has some influence over this measure through programs that encourage conservation of native prairie, i.e., Prairie Conservation Action Plan, conservation easement program, support for a native plant society and the Prairie Adaptation Research Collaborative. This includes partnership agreements that the Department enters into with 'not-for-profit' organizations such as the Nature Conservancy, Saskatchewan Wildlife Federation and Ducks Unlimited that allow for the establishment of conservation easements and other conservation lands. The Department does not have direct control over decisions regarding cultivation of native prairie or conversion of that land for other purposes. In 2007-08, work will begin to develop a system to assess, monitor and report on the status of ecosystems throughout the province.

Sustainability of the forest is dependent on a wide variety of factors, particularly impacts of the forest industry. The number of hectares of Crown land within the Commercial Forest that have in place a comprehensive suite of management programs, including adequate forest inventory, reforestation plans, appropriate environmental assessments, Forest Management Agreements and land use plans is a measure, or indicator, of sustainable use of Saskatchewan's provincial forest resources. Although there has been no change in the forest area boundaries, the Department continues to acquire more accurate geospatial data to better calculate the areas affected by these practices. The Department has direct influence over these measures because sustainable management tools are Department led. Factors that influence forestry development initiatives include lack of infrastructure in remote areas, market demands and opportunities for value-added products.

GOAL 2

People, resources and property values at risk from wildfires are protected

***OBJECTIVE 1** – Fire suppression targeted to prioritized values at risk*

The expanding uses of the forest, the increasing population of northern Saskatchewan and the escalating costs of fire suppression are placing unprecedented challenges on the Province's fire management program. As predicted climate warming occurs, additional pressures for fire protection over the long-term can be expected. However, newly realized ecological benefits of fire challenge traditional views that all fires must be suppressed. Allowing fires to take their natural course creates a more diverse vegetation mosaic. Fires help remove the build up of natural litter in the forest, reducing the risk of large, intense and costly fires. Fire also assists in moderating insect and disease infestations. Prescribed fires are used in selected provincial parks as part of vegetation management. In the broader forest landscape, the challenge is to find the proper balance between fire suppression to protect values at risk and the management of fire to maintain healthy and diverse ecosystems.

Action on fires is predicated on the values, such as communities, commercial timber, or outfitter's camps that may be threatened if a fire is allowed to burn. In areas where the fire threatens values that are considered important then action will be taken to control the fire. The action taken may range from extinguishing the fire completely to allowing it to burn and monitoring the fire's progress as long as it doesn't threaten important values. This approach attempts to strike a balance among costs of suppression, the protection of important values, and ecosystem benefits that can occur when a fire is allowed to burn naturally.

Current risks and issues impacting achievement of this objective include:

- arson fires and unintentional human-caused fires;
- managing wildfires in provincial parks;
- need for renewal of aircraft fleet and infrastructure; and
- an aging workforce and other considerations (other employment opportunities, fitness requirements, etc.) are anticipated to create great difficulty in staffing, training and retention of fire personnel.

Saskatchewan Environment's approach to address the above risks and issues is to continue to ensure that protection of human life and communities remains the top priority. Arson fires will be investigated; public awareness campaigns will be developed; fire guards and other wildfire plans will continue to be developed for high-risk park areas; renewal of the aircraft fleet and associated infrastructure will continue to be pursued, and a succession management plan is being developed for the fire program which incorporates recruitment of specialized skills in the wildfire industry (e.g. fire behaviour, meteorological, geospacial, etc.).

The following programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support

Capital – Fire Management and Forest Protection

Fire Management and Forest Protection Program

Radio Technical Services Program

Indirect Support

Communications Services Program

Forest Operations Program

Park Operations Program

Effective fire protection includes prevention, detection, initial attack, and sustained action. A number of support requirements are essential for fire suppression operations, including training, equipment and fuel procurement, air tankers, meteorological and geospatial information to assess risks, and communication services to support fire suppression teams.

Saskatchewan Environment has two output measures for this objective that provide a good indication of how well the program is performing in the full response zone. As the Department gains experience with its reclassified zones, it will develop measures of program performance in the modified and the observation zones.

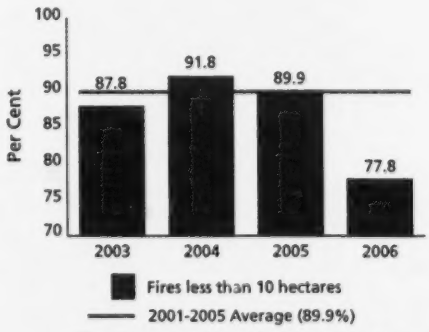
Key Actions for 2007-08

- Aerial fleet renewal – complete work on a five-year modernization program for four of the six Canadair water bombing aircraft and continue work on the replacement of the Tracker aircraft (with the CV 580A).
- Continue succession planning and implementation in targeted areas specific to the Fire Management and Forest Protection Program.

What are we measuring?

Per cent of fires in the full response zone contained to 10 hectares or less

Progress to date

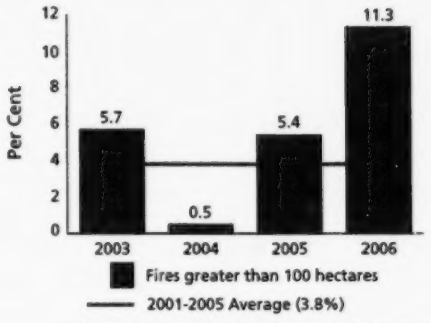


[Data Source: Saskatchewan Environment, NR22 Database]

What are we measuring?

Per cent of escaped fires in the full response zone that are larger than 100 hectares

Progress to date



[Data Source: Saskatchewan Environment, NR22 Database]

The percentage of contained fires is a measure of how well the pre-planning, detection and initial attack components of the program are performing in concert. Containing fires to small sizes will minimize the number of communities threatened by fire as well as reduce the area burned and the costs associated with fire suppression. Saskatchewan Environment's performance results and operating costs depend on a number of factors: analysis of the landscape and its vulnerability to fire starts (e.g., moisture levels, wind speed and direction, fuel type), effective planning to pre-position resources in areas where fire might be expected, ease of access to the location of the fire, topography of fire location, early detection of fires, rapid/effective initial attack and quick reliable support from aircraft.

Escaped fires are an unavoidable occurrence in forest fire programs. Uncontrollable circumstances, such as poor detection conditions; multiple fire starts; dry, windy burning conditions; the volatility of the fuel; proximity to resources to allow for successful initial attack; topography; and the time of the year can all combine to create conditions that allow fires to grow beyond 100 hectares. Resources to suppress fires escalate as the fire size grows, so costs also grow quickly.

A large number of fire starts in a compressed period combined with a prolonged period without precipitation occurred in late June and early July. This, in conjunction with a national shortage of available firefighting resources, led to a larger number of fires that exceeded containment at 100 hectares or less. The number one provincial suppression priority - Human Life and Communities - were protected but some loss of commercial timber occurred. The impact of this loss to the forest industry is not known.

OBJECTIVE 2 – Increased capacity of individuals, communities, industries and others to take responsibility for reducing fire hazards and wildfires

Wildland fires pose a threat to people, property and natural resources. Residents, communities and businesses need to take precautionary actions to protect their interests. Increased northern development and a growing northern population requires more focused attention to ensure wildland fire risks are both known to residents and developers, and appropriate risk mitigation measures are undertaken.

In recent years, considerable effort has been directed to risk reduction work with communities. The Department has completed wildlife risk assessments on 104 northern communities. This includes a formal assessment of the risk of wildfire occurrence and the actions that can be taken by the community in advance of fires that will mitigate the risk of the fire threatening the community. The actions that can be taken at the community level reflect both steps the Department can do and those that the community can do. This reflects the joint responsibility held by both parties to protect their interests.

Current key risks and issues impacting achievement of this objective include:

- greater economic activity and higher populations increase the chance of human-caused fires and increase the number of developments to be protected; and
- limited fire suppression capacity of municipalities.

Saskatchewan Environment's strategy to address the above risks is to increase co-operation and training among fire management agencies and foster a better understanding of the roles and responsibilities of municipal fire management jurisdictions in the Province; undertake vegetation management in provincial parks and on Crown lands; educate and encourage individuals, businesses, communities, cottagers and visitors to the north to prevent wildland fires and reduce wildfire risks; and work with northern communities to assist with community protection plans and provide support to municipalities to enhance their capacity for fire suppression and protection.

The following programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support

Fire Management and Forest Protection Program

Indirect Support

Communications Services Program

Ecosystem Assessment Program

Landscape Planning and Management Program

Not all wildfires can be prevented, but by assisting stakeholders in wildfire risk assessment, fuels management and community planning, and by educating the public about wildfire risks, both the number of human-caused fires and the damage they could do to communities, individual homes and property can be reduced.

Saskatchewan Environment has one measure for this objective. It focuses on individuals and their impact on wildland fire.

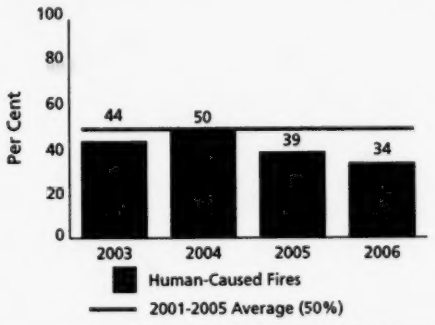
Key Actions for 2007-08

- Deliver a high profile public awareness campaign with the objectives of: reducing human-caused fires, having those stakeholders that are active in the forest take responsibility to avoid or mitigate the risk from fires, and building understanding of changes to wildfire management strategies.
- Act as a catalyst for risk mitigation work with northern communities by building understanding of wildfire risk and encouraging communities to take ownership of actions to reduce risks.

What are we measuring?

Per cent of human-caused wildland fires

Progress to date



[Data Source: Saskatchewan Environment, NR22 Database]

The wildland fire prevention education and awareness campaign is designed to reduce the percentage of human-caused wildland fires by encouraging individuals to recognize their responsibility for containing the fires they start, by providing individuals with the information they need to be aware of the risks of starting a wildfire, and to use fire more safely. Increasing this awareness is intended to reduce the percentage of human-caused fires, which typically occur closer to communities and resort properties where more people are located. The Department has indirect influence over this measure.

GOAL 3

Fair opportunity for sustainable use and enjoyment of renewable resources

***OBJECTIVE 1** – Equitable allocation of natural renewable resources*

Saskatchewan Environment ensures an equitable allocation of access to land and resources to satisfy environmental, social and economic needs. Conflict over resource use can impinge upon existing uses, delay or stop potential developments, or negatively impact the quantity or quality of natural renewable resources.

Continued high demand for various natural resources (e.g., oil and gas, minerals, wildlife, fish, etc.) is causing growing concern from resource users, managers and other stakeholders about the long-term sustainability of some areas and their resources. Presently, conflicting demands of most immediate concern exist in the Great Sand Hills, Fort a-la-Corne and northwest region of the Province. Future situations may arise in the Pasquia Hills where oil shales are attracting attention, and an enhanced road network between Alberta and Saskatchewan (Garson Lake road) will fuel a demand for northern cottage development. Poorly managed development can result in degradation of the environment affecting land, air and water and lead to negative impacts on native biological diversity and the economy.

Recent assessments indicate there are four key areas of risk to achieving this objective:

- increasing demand for northern development and trespass situations;
- lack of efficiency and the need to improve competitiveness in the forestry sector;
- over-harvest of fish, increasing harvest pressure and aquatic ecosystem disturbances; and
- risk of disease from the illegal import of game.

Saskatchewan Environment's strategy to address these risks is to facilitate public and stakeholder input on allocation decisions through land use planning processes, such as those underway in northern Saskatchewan (Athabasca and Fort a-la-Corne areas) and/or pursue other options, such as a strategic environmental study (Great Sand Hills), setting standards and guidelines for sustainable use, issuing land dispositions and resource allocations, and monitoring compliance with standards and conditions.

The following Department programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support

Landscape Planning and Management Program

Crown Land Disposition Program

Forest Planning, Allocation and Licensing Program

Standards for Forest Practices and Accountability Program

Sustainable Fisheries Management Program

Sustainable Wildlife Management Program

Indirect Support

Forest Inventory and Analysis Program

Forest Operations Program

Compliance Program

Field Services Program

Communication Services Program

Ecological Health Assessment Program

Saskatchewan Environment has two output measures for this objective. The Department is working on developing a broader range of measures for the different types of resource allocation.

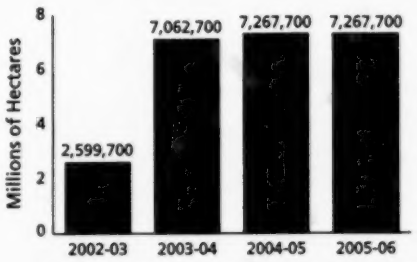
Key Actions for 2007-08

- Complete outstanding forest land-use plans that have been initiated to date.
- Undertake a technical review/assessment of the effectiveness of the current Chronic Wasting Disease program in Saskatchewan.
- Co-ordinate public review of the Great Sand Hills Regional Environmental Study, assist in the planned examination of local administration by Saskatchewan Government Relations, and develop a framework for implementation of approved study recommendations.

What are we measuring?

Number of hectares of Crown land under Integrated Land Use Plans (ILUP)

Progress to date



[Data Source: Saskatchewan Environment]

What are we measuring?	Progress to date
Per cent of annual allowable cut harvested	67% *[2004-05]* 64% *[2005-06; latest data available]* *[Data Source: Saskatchewan Environment, Forest Services Branch]*

Integrated land use planning is an ecosystem-based tool that links the environment, the community and the economy in ways that help ensure the sustainability of resources. The unification of the many varied interests through the integrated land use planning process requires time, commitment, a high level of participation and adequate funding. Any influences that adversely affect any of these four key components will result in at least a degree of loss of control or influence over the measure.

The percentage of annual allowable cut harvested reflects the effectiveness of the balance between environmental protection and economic development. The annual allowable cut is determined by a variety of environmental factors to ensure long-term forest sustainability. The Department has significant influence over this measure because the Department determines the annual maximum allowable cut. However, individual companies determine the percentage of the allowable cut they will actually harvest based on a number of uncontrollable factors including demand and available prices for forest sector products.

OBJECTIVE 2 – Accessible recreation and educational opportunities on provincial park and Crown resource lands

Crown lands and provincial parks are public assets administered by Saskatchewan Environment to provide economic, environmental, social and cultural benefits to the Province. Rural municipalities and businesses in and near parks expect that provincial parks will continue to sustain and expand economic growth through tourism.

Current risks and issues impacting achievement of this objective include:

- escalating costs to operate the parks system, including the need to upgrade park facilities and infrastructure; and
- balancing conflicting demands for expanded use of parks versus conservation and protection.

Saskatchewan Environment's strategic approach to address these issues is to ensure that a long-term plan is in place that is fiscally responsible which ensures quality park experiences and expanded tourism opportunities while conserving the natural lands that benefit present and future generations.

The following Department programs support the strategy to address the above risks, as well as overall achievement of this objective:

Direct Support	**Indirect Support**
Regional Parks Program	Communication Services Program
Urban Parks Program	
Parks Operation Program	
Parks Planning and Policy Program	
Provincial Park Facilities Capital Program	

Saskatchewan's park programs strive to maintain park landscapes and buildings to promote a high-quality visitor experience within a natural setting, set standards and policies for sustainable use and enjoyment of parks, monitor and enforce policies essential to a safe and enjoyable park experience, promote tourism and business development opportunities within parks and in nearby communities and manage overlapping demands from competing park users. The Department also leases and permits the sale and use of Crown land and resources, such as expanding the access to cottage opportunities in parks and on resource Crown lands across the Province. Public expectation is that provincial parks are maintained for future generations.

The Commercial Revolving Fund (CRF) is used to manage annual operating budgets for provincial parks. Three-year averages are used to establish annual revenue projections and set the operating budgets for each park location.

Saskatchewan Environment has two measures for this objective, one output and one quality (satisfaction) measure. While this objective is focussed on both park and Crown resource lands, data sources for measures related to Crown resource lands are currently not available. The Department is developing a plan for future direction of provincial parks, which may help inform choices about future performance measures for this objective.

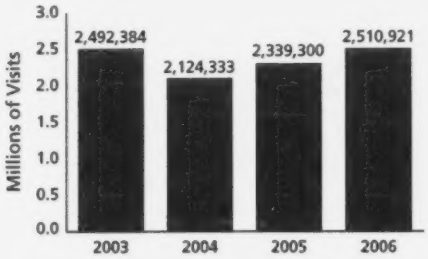
Key Actions for 2007-08

- Apply green technology in ongoing operations and a number of capital projects in the provincial parks where long-term ecological and operational cost reductions can be made.

What are we measuring?

Number of provincial park visits

Progress to date

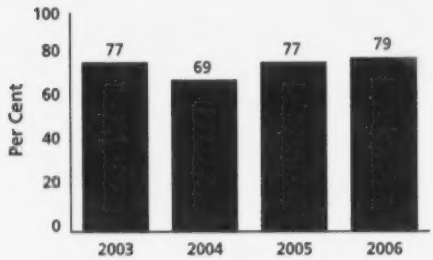


[Data source: Saskatchewan Environment Summer Visitation and Outdoor Recreation Statistical Report]
Note: Park visits are recorded at provincial parks from the May long weekend to Labour Day.

What are we measuring?

Per cent of survey respondents indicating satisfaction with their park visits

Progress to date



[Data Source: Saskatchewan Omnibus Poll]

Number of visits to provincial parks is a measure of park access and popularity. Tracking this number helps Saskatchewan Environment evaluate the success of its park policies and related programs. Notwithstanding the influence of weather conditions on park visits, Saskatchewan Environment has direct influence on the demand for provincial park use through marketing, park fees and recreation opportunities provided.

Saskatchewan Environment provides access to natural and cultural areas and recreational facilities and services in our provincial parks. Park visitor satisfaction levels assess, from the visitor's perspective, the results of these activities. Saskatchewan Environment's parks-related programs and facilities directly influence visitor satisfaction.

OBJECTIVE 3 – Increased economic benefits based on sustainable use of natural renewable resources

Saskatchewan Environment's sustainable management of renewable resources creates opportunities for a wide range of nature-based tourism including hunting, fishing, camping and outfitting. Tourism activity in sport angling and hunting within the Province generated expenditures of over $307 million per year leading to a Gross Domestic Product of $92 million. These expenditures comprised of approximately 22 per cent of all annual tourism expenditures in the Province. Of this $307 million, the outfitting industry maintains visitor expenditures estimated at $82 million annually. Provincial parks also generate a significant economic impact. Tourists to provincial parks spend over $121 million annually leading to an impact of over $31 million to the Gross Domestic Product. Many rural communities rely on parks as a market for their local businesses and for employment opportunities.

The Department's efforts also support sustainable development in the agricultural, mining, oil and gas, energy, and manufacturing sectors, which contribute an estimated $9.8 billion or 29 per cent of Saskatchewan's gross domestic product to the provincial economy in 2005.

Continued high demand for various resources (e.g., oil and gas, minerals, wildlife, fish, etc.) has caused growing concern from resource users, managers and other stakeholders about the long-term sustainability of some resources.

Key areas of risk in achieving this objective include:

- the decline of some local fisheries for recreational and commercial use (lake trout, walleye, sturgeon, whitefish);
- high and increasing expectations that parks will continue to sustain and expand tourism/economic growth; and
- challenges in creating a new sustainable agro-forestry industry.

Saskatchewan Environment's strategy to address these risks is to monitor resource supply and work with stakeholders to manage demand and use. Consultation and communication processes inherent in policy development are key factors in stakeholder acceptance of allocation of resources. The Department is working to enhance monitoring, compliance and habitat improvements. In the parks program the Department is working to implement a fiscally responsible plan on a park-by-park basis, while continuing to market and promote park businesses, activities and opportunities. The Department is also working with partner agencies to deliver on Department forest responsibilities to respond to the uncertainty in the provincial forest industry and help develop a new agro-forestry industry.

The following Department programs support both the above strategy to address risk areas as well as overall achievement of this objective:

Direct Support

Sustainable Fisheries Management Program

Sustainable Wildlife Management Program

Park Operations Program

Forest Planning, Allocation and Licensing Program

Forest Operations Program

Forest Insect and Disease Program

Softwood Lumber Trade Dispute

Indirect Support

Renewal of Not Sufficiently Regenerated (NSR) Lands Program

Standards for Forest Practices

All of the above programs seek to identify, promote and develop opportunities for additional sustainable use of natural resources with the involvement and support of affected communities, stakeholders, the private sector, Aboriginal groups, Park Advisory Committees and other resource users and interest groups.

Saskatchewan Environment has three output measures for this objective. The objective focuses on both economic impacts and sustainable use. Two new measures are being introduced this year subsequent to completion of three separate economic evaluations related to fishing and hunting. These studies are being used to establish economic impact models that can be updated on an annual basis. These outcome measures better reflect the impact of the Department's management and allocation of the wildlife and fisheries resources within the Province.

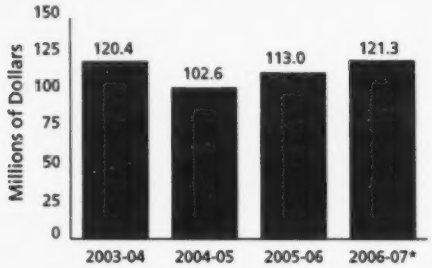
Key Actions for 2007-08

- Provide support for efforts to build a new provincial forestry industry.
- Provide support in the development of an energy strategy for Saskatchewan.
- Protect the commercial forest from spruce budworm damage with appropriate treatment regimes.
- Support efforts to establish agro-forestry in the Province by providing technical forestry expertise and silvicultural advice.
- Develop a new Provincial Fisheries Management Plan.

What are we measuring?

Economic impact of Saskatchewan's provincial parks

Progress to date



** Data current as of December 31, 2006*

[Data Source: Saskatchewan Environment, Strategic Planning and Corporate Assessment]
Note: In previous reports, economic impact was based only on Saskatchewan long haul travelers (visitors traveling over 199 km) as well as out-of-province visitors. This measure now reports on all visitors.

The numbers being disclosed in this performance measure have been restated to reflect the estimated expenditure impact in each fiscal year. This disclosure is consistent with the economic impact reported for fishing and hunting in Saskatchewan.

What are we measuring?

Economic impact of fishing in Saskatchewan:

- Sport angling
  - ~ Resident
  - ~ Non-resident
- Commercial fishing

Progress to date

$118 million
[2005; latest data available]

$77 million
[2005; latest data available]

$5 million
[2005; latest data available]

[Data Source: Saskatchewan Environment, Strategic Planning and Corporate Assessment]

What are we measuring?	Progress to date
Economic impact of hunting in Saskatchewan:	
• Resident hunting	$54 million *[2005; latest data available]*
• Non-resident hunting	$53 million *[2005; latest data available]*
	[Data Source: Saskatchewan Environment, Strategic Planning and Corporate Assessment]

Provincial parks have a substantial impact on the Province's economy, especially in rural Saskatchewan. Thirty-three per cent of all visits to provincial parks include tourists who come from outside the Province and Saskatchewan residents who travel more than 199 km to a park. Factors such as weather and gas prices can impact the number of visits, length of stay and visitors' expenditures. The source of this information is the *Economic and Social Impact Assessment of Saskatchewan's Provincial Parks.*

Sport fishing is an important element of nature-based tourism that contributes to the economy of the Province. Saskatchewan Environment has some influence over sport fishing through fishing regulations, licence fees and harvest quotas. Other factors, such as weather and fish populations also affect angler numbers. Commercial fishers contribute to the economy of the Province. Saskatchewan Environment has some influence over this measure for commercial fishing through designating and assigning catch quotas for commercial fishing sites. Factors such as market conditions, weather, forest fires and job changes by fishers affect the measurement results.

Hunting is also a major component of nature-based tourism that contributes to the economy of the Province. It is also used to support the sustainability of the resource through population management. Saskatchewan Environment has some influence over hunting through regulations, licence fees and hunting quotas. Other factors such as the weather, wildlife populations and animal disease also affect hunter numbers.

The above measures include the annual impact of the outfitted hunting and fishing industry in Saskatchewan. The outfitting industry itself generates an annual gross expenditure of $82.5 million and maintains approximately 1,560 full time equivalent jobs throughout the Province.

The source for the information for all of these measures are the following three reports completed by Saskatchewan Environment in 2006-07:

- Economic Evaluation of Saskatchewan's Commercial and Non-outfitted Sport Fishing;
- Economic Evaluation of Saskatchewan's Outfitted Hunting and Fishing Industry; and
- Economic Evaluation of Hunting in Saskatchewan.

GOAL 4

Shared environmental stewardship

***OBJECTIVE 1** – Comprehensive and integrated environmental strategies*

The environment is made up of interacting systems of water, land, air and living organisms. What affects one often affects the others. Environmental issues also usually involve many stakeholders. The breadth of Saskatchewan Environment's mandate and the variety of levels of government with responsibility for environmental issues means that the Department leads or participates in a wide range of interdepartmental or intergovernmental projects.

Decisions that integrate environmental protection and economic sustainability require widespread support and commitment from Saskatchewan people. Public demand for increased involvement in resource management decision-making processes is growing.

Key areas of risk in achieving this objective include:

- the level of commitment from all provincial agencies to implement a green strategy;
- resources to implement key elements of a green strategy;
- the new federal government is developing new strategies for dealing with environmental issues and backing away from previous approaches to climate change and the Environmental Sustainability and Competitiveness Memorandum of Understanding; and
- increasing public and stakeholder expectations for participation in environmental decisions, in the face of increased number and complexity of issues and increased cost of participation for stakeholders and the public.

Saskatchewan Environment's strategy to address the above risks is to maintain and enhance collaborative relationships and projects at the provincial level. Saskatchewan Environment will also continue to work on multilateral and bilateral formal relationships with other jurisdictions (Environmental Sustainability Framework and Smart Regulation initiative) and to work in partnership with First Nations and Métis organizations to pursue environmental and resource management goals.

Saskatchewan Environment also encourages shared stewardship of the environment through place-based approaches that involve all stakeholders, such as land use plans, strategic environmental studies and airshed management. The Department also encourages sector-based involvement through industry or special interest groups on issues or policies in areas such as parks, fisheries and wildlife.

The following Department programs support both the above strategy to address risk areas as well as overall achievement of this objective:

Direct Support	Indirect Support
Green Policy Program	Communication Services Program
Policy and Legislation Program	
Ecosystem Assessment Program	
Land Management Program	
Oil and Gas/Minerals Program	

In the October 2006 Saskatchewan Omnibus survey, nearly one-half of survey respondents strongly agreed that Saskatchewan can maintain a healthy environment while achieving a productive and sustainable future.

Saskatchewan Environment is leading the development of a Government-wide green strategy, which will provide a vision for sustainability and establish greater integrated and shared responsibility for environmental management and contribute to development of a stronger economy. One of the key messages heard from stakeholders during consultations is interest in increased opportunities to influence ecosystem and environmental management decisions. Relationships with our partners are shifting as we pursue greater sharing of responsibility for the environmental integrity of the Province.

The proposed green strategy will also facilitate shifts toward greater use of best practices for managing the environment and new competencies will need to be developed or acquired in areas such as remote sensing, resource economics and environmental auditing. Saskatchewan Environment will assist in promoting best practices with a number of departments and Crown corporations in developing stewardship plans as a component of their performance plan and annual public reporting on performance.

Key Actions for 2007-08

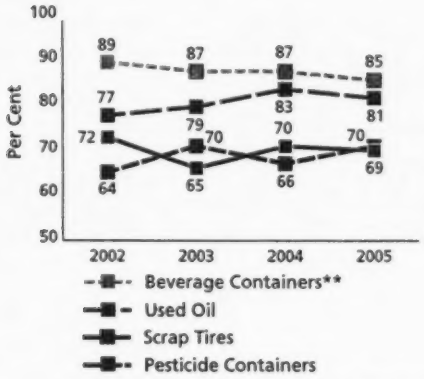
- Develop and implement a government-wide green strategy.
- Develop communication strategies and programs for staff, public, communities, industry and other government agencies to encourage stewardship and shared responsibility for sustainable development.

What are we measuring?

Recycling rates for the following:

- Scrap tires
- Beverage containers
- Pesticide containers
- Used oil
- Paint*
- E-Waste*

Progress to date



* *Program not yet in place for a full year.*

** *Beverage container data is based on a fiscal year. The fiscal year 2005-06 is represented by 2005. All other data is based on a calendar year.*

[Some figures are approximate, based on an estimate of the total generated in the province.]

[Data Source: Third party organization annual reports]

Recycling is an indicator of public commitment to waste minimization and indicates shared responsibility for environmental stewardship. Baseline percentages reported in the recycling program are based on the proportion of total annual product sales in the Province. The Department administers the enabling regulations for a number of third-party stewardship programs. Market conditions and public commitment determine the recycling rates.

OBJECTIVE 2 – *First Nations and Métis rights and interests are met through co-operative means*

The First Nation and Métis people have Treaty and Aboriginal rights and interests in the renewable natural resources administered by Saskatchewan Environment. The Department is committed to accommodating these rights and interests, as well as ensuring potential conflicts with other societal needs are resolved in a co-operative manner.

Saskatchewan Environment leads on First Nations and Métis rights and interests concerning hunting, fishing, trapping, gathering, and use of Crown lands under the Department's administration. Saskatchewan Environment both supports and receives support on broad government initiatives involving Aboriginal rights, particularly in association with Saskatchewan Justice, Saskatchewan Government Relations and Saskatchewan First Nations and Métis Relations.

Key risks and issues impacting achievement of this objective include:

- failure to comply with 'duty to consult' guidelines may lead to disputes. Clarification of the duty to consult is emerging but capacity within First Nations to participate is expected to limit progress;
- increasing demand for greater involvement in resource-based economic development and a lack of capacity to engage in consultations creates uncertainty for development projects; and
- a lack of capacity in the Aboriginal community to manage environmental protection and renewable resources (e.g. unregulated game farming carries risks to the regulated game farm industry and other livestock and wild species).

Saskatchewan Environment's strategy to address the above risks is to seek to engage Aboriginal groups, government departments, the federal government and other institutions and stakeholders in working relationships that address one or more of the following goals: ensuring recognition and respect for Treaty and Aboriginal rights; conservation of species and habitats; involvement of Aboriginal communities in economic benefits derived from renewable resources; and building the capacity of First Nation and Métis communities and organizations to effectively co-operate in environment and resource management program and policy development. The Department also has internal programs, such as Aboriginal employment and cultural awareness that enable Saskatchewan Environment to effectively respond to Aboriginal interests and rights.

The following Department programs support both the above strategy to address risk areas as well as overall achievement of this objective:

Direct Support

Aboriginal Affairs Program

Land Management/Treaty Land Entitlement Program

Indirect Support

Forest Operations Program

Crown Land Disposition Program

Landscape Planning Program

Industrial Mine and Mill Program

Sustainable Fisheries Management Program

Sustainable Wildlife Management Program

Issues regarding Aboriginal people and renewable resources will continue because of growth in the Aboriginal population and trends in legal decisions. The forest sector is an example of Saskatchewan Environment's co-operative approaches to resource management and ensuring that Aboriginal people are partners in forest sector development. This has been accomplished through direct involvement in the forest industry, such as Meadow Lake Tribal Council and NorSask Forest Products, integrated land use planning for forest management and through creative partnerships with the Aboriginal community and industry such as the wood supply agreement with Agency Chiefs Tribal Council. In addition, Saskatchewan Environment is responsible for helping to fulfill the terms of Saskatchewan Treaty Land Entitlement (TLE) Agreements as they relate to Crown resource land.

Saskatchewan Environment is removing the previous performance measure for this objective and replacing it with one new output measure to better reflect the Department's effort and influence in meeting the needs of First Nations and Métis people.

Key Actions for 2007-08

- Increase Saskatchewan Environment's ability to work with the various Tribal Councils to deal with forestry, mining and other land use issues in northern Saskatchewan.
- Work co-operatively with Entitlement First Nations to help them acquire the land they are entitled to purchase pursuant to Treaty Land Entitlement Agreements.

What are we measuring?	**Progress to date**
Per cent of major issues resolved on an annual basis	30% *[2006-07]* *[Data Source: Saskatchewan Environment, Aboriginal Affairs Section]*

This measure reflects the capability within the Department and the First Nations and Métis communities to resolve major issues facing the allocation and utilization of renewable natural resources within the Province. Major issues are considered to be ones which involve senior officials from First Nations and Métis communities and other government departments as well as our own (i.e., James Smith Cree Nation diamond mine access issue). An issue is considered to be resolved when there is a written commitment as to the steps to be taken to resolve an outstanding issue. During 2006-07, the Department attempted to address 10 major issues and three of these issues resulted in a commitment to take specific actions to resolve (i.e., Capacity Building Service Agreement between Saskatchewan Environment and Agency Chiefs Tribal Council). This measure is a good reflection of the success of the co-operative processes that are undertaken by all parties. The Department has direct influence on the outcome of this measure based on the resources and effort dedicated to resolution.

OBJECTIVE 3 – Strengthened and comprehensive compliance strategies

Compliance efforts are used to achieve Saskatchewan Environment's strategic goals and objectives. The compliance function is the effort that directly encourages the community to conduct themselves in accordance with requirements established by law, or to take action for positive effect on the environment. The Department's compliance model seeks to encourage personal positive impact on the environment and voluntary compliance through information and education. When voluntary compliance appears to fail, efforts shift to prevention through targeted physical inspection, direct interaction and, when necessary, investigation and court action. The Department has been criticized for not being more aggressive in enforcing environmental regulations. This is an unfortunate reality caused by a number of factors.

Key risks and issues impacting achievement of this objective include:

- full utilization of environmental prosecution capacity and need for increased conservation officer presence in key areas of the north;
- outdated and prescriptive legislation and regulations are more labour intensive to enforce; and
- overlap with other jurisdictions, particularly federal, but also municipal and First Nations present a challenge in clarifying provincial responsibilities for enforcement.

Saskatchewan Environment's compliance plan emphasizes a risk-based approach that targets resources at issues presenting the highest environmental risk, increased collaboration, increased emphasis on education and other less regulatory approaches, and continuous improvement. Some specific actions within the strategy to address the above risks are to increase compliance capacity in key areas, ensure full utilization of a special environmental prosecutor within Saskatchewan Justice; review and revise Saskatchewan Environment's legislative and regulatory framework; development of targeted education and communication programs; and increased use of alternative measures and new creative tools and approaches to enhance compliance. Negotiations with the federal government are proceeding very slowly, but progress could be made particularly in Fisheries, Species at Risk and Hazardous Substances regulations. Increased consultation with First Nations is required to ascertain areas of collaboration and separation in regulatory and enforcement responsibilities.

The following Department programs support both the above strategy to address risk areas as well as overall achievement of this objective:

Direct Support	Indirect Support
Compliance Program	Standards for Forest Practices Program
Field Services Program	Planning, Reporting and Assessment Program
	Water Program
	Air Quality Management Program
	Crown Land Disposition Program
	Sustainable Fisheries Management Program
	Sustainable Wildlife Management Program
	Industrial Mine and Mill Environmental Protection Program
	Communication Services Program
	Aboriginal Affairs Program

The Department's environmental scan and risk assessment suggest that the environmental problems of the future will require a more sophisticated combination of compliance tools, as well as a more focussed and risk-based management approach to prioritize compliance and enforcement activities. The Department's compliance plan facilitates these approaches as well as new ways to enhance compliance through partnerships, education, communications and creative prevention programs. Efforts are also being made to more carefully match compliance tools to type and level of risk.

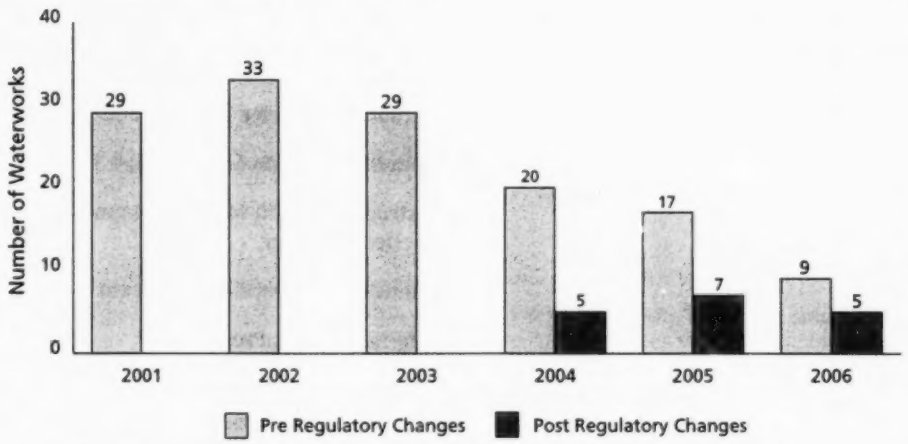
Saskatchewan Environment has two output measures for this objective. Both measures are rates of compliance. The Department is working to develop measures of the tools used in the compliance process.

Key Actions for 2007-08

- Implement an integrated, risk-based compliance plan for Saskatchewan Environment.
- Fully engage the new environmental prosecutor position assigned to Saskatchewan Environment to pursue court action on non-compliance files that involve high environmental and/or resource management risk.
- Strengthen operational funding and staff resource capacity to address the environment and resource management risks associated with increased economic development and new road construction in northern Saskatchewan.

What are we measuring?	Progress to date
Number of waterworks that do not meet Saskatchewan Environment's minimum treatment requirements (broken down by pre and post regulatory changes)	See the graph below

NUMBER OF WATERWORKS THAT DO NOT MEET SASKATCHEWAN ENVIRONMENT'S MINIMUM TREATMENT REQUIREMENTS



[Data source: Saskatchewan Environment, Environmental Protection Branch]

What are we measuring?	Progress to date
Rate of non-compliance with environmental laws and regulations	
• Provincial	99.7% *[2005-06; latest data available]*
• Fishers	99.8% *[2005-06; latest data available]*
• Forestry	96.9% *[2005-06; latest data available]*
	[Data Source: Saskatchewan Environment]

Safe drinking water is critical to human health. Meeting minimum treatment requirements is a measure of infrastructure water treatment capability, and therefore of the safety of drinking water that they produce. Saskatchewan Environment has a high level of influence over this measure through the Department's regulations; however, because of significant costs for treatment upgrades, communities need time and encouragement to comply.

Compliance with environmental laws and regulations is critical to ensuring that all people within the Province are held to the same standards for their use and enjoyment of the Province's natural resources and to ensure our resources are available for future generations and safe for us all.

Compliance rates are determined by looking at the total number of charges and warnings in comparison to the provincial population. Charges and warnings are an indication of non-compliance. The above provincial compliance rate is calculated by looking at the total warnings and charges in relation to the provincial population. The compliance rates affecting the fishery and the forest industry are also highlighted because of the risk of non-compliance to these natural resources. The Department has the ability to directly influence the amount of contact Conservation Officers have with the public through targeting its resources. The Department has indirect influence on the actual compliance of individuals to environmental laws and regulations through education and communication initiatives.

***OBJECTIVE 4** – Effective and efficient environmental approval and regulatory processes*

One of Saskatchewan Environment's key roles is to provide the environmental approval and regulations that govern people's actions, so the quality of the environment is protected for future generations. In addition to the numerous formal acts and regulations, the Department also uses less formal tools such as permits, establishing standards and guidelines, promoting industry best practices and environment management systems. Aggressive development of Saskatchewan's resource-based economy carries significant environmental implications.

The Department has recognized the need to modernize and streamline its legislative and regulatory processes, especially those affecting provincial economic development. Our objective is to develop proposals for legislative reform and expansion of policy tools in order to broaden compliance approaches and streamline processes. Effective and efficient environmental approval and regulatory processes must ensure the equitable allocation of natural renewable resources while increasing the economic benefits based on sustainable use of natural renewable resources. Streamlining and developing efficient environmental regulatory systems will be a key component to this new strategy.

Key risks and issues impacting achievement of this objective include:

- technical advancements or market demands in an industry can reduce environmental impacts and make certain ways of managing the environment less effective; and
- failure to address industry permitting and inspection requirements in a timely way has direct impact on industry productivity and over time affects government revenues and the industry perception of Saskatchewan as a good place to do business.

Saskatchewan Environment's strategy to address the above risks will be incorporated largely within a proposed green strategy which will provide a vision for improved integration of economic, social and environmental values. Saskatchewan Environment is working to continue its refinement of the environmental assessment program, work with industry in a collaborative manner to develop best practices, standards and environmental management systems (similar to the Department's work with the petroleum industry through SPIGEC – Saskatchewan Petroleum Industry Government Environment Committee), and over the long-term pursue a comprehensive legislative review.

The Environmental Assessment Act is intended to facilitate economic opportunities that exhibit environmental integrity. Proponents prepare environmental impact statements early in the planning and design phase of projects to document the broader impacts of the development proposal on the social, economic and biophysical aspects of the area. In recent years, much work has been done in conjunction with the oil and gas, mining and transportation industries to streamline the approval process, and facilitate understanding and resolution of environmental concerns early in the project planning stage. Saskatchewan Environment intends to work in conjunction with other sectors to further streamline the approval process, standardize environmental requirements and examine more efficient permitting requirements.

The following Department programs support both the above strategy to address risk areas as well as overall achievement of this objective:

Direct Support

Environmental Assessment Program

Oil and Gas, Minerals Program

Green Policy Program

Policy and Legislation Program

Indirect Support

Standards for Forest Practices Program

Forest Operations Program

Air Quality Management Program

Industrial Mine and Mill Environmental Protection Program

Landscape Planning and Management Program

Crown Land Disposition Program

Key Actions for 2007-08

- Develop an Environmental Management Model as the foundation for legislative reform within the Department and across government.
- Complete four additional results based standards in support of the new regulatory framework necessary to implement and enforce sustainable forest management.

What are we measuring?

Provincial ranking with respect to mining industry satisfaction with environmental regulations

Progress to date

See the table below

PROVINCIAL RANKING WITH RESPECT TO MINING INDUSTRY SATISFACTION WITH ENVIRONMENTAL REGULATIONS

Ranking	2004	2005
1st	Manitoba	Quebec
2nd	Quebec	Manitoba
3rd	Alberta	Alberta
4th	New Brunswick	Ontario
5th	Ontario	Newfoundland and Labrador
6th	Newfoundland and Labrador	Saskatchewan
7th	Saskatchewan	New Brunswick
8th	Nova Scotia	Yukon
9th	Yukon	British Columbia
10th	Nunavut	Nova Scotia
11th	Northwest Territories	Northwest Territories
12th	British Columbia	Nunavut

[Data Source: Annual survey by Fraser Institute]
No data for Prince Edward Island.

In a global industry, a region's policy climate takes on an increasingly important role in attracting and retaining investment in the mining sector. Good environmental regulations provide for a balance of environmental protection and predictability and timeliness of process. The Fraser Institute has conducted an annual survey of mining companies since 1997 to assess how a province's mineral endowment and public policy factors affect exploration investment. This measure provides third-party assessment of our performance and is a benchmarked measure with other comparable jurisdictions. The Department of Environment has direct influence over the environmental regulations that are required for the mining industry.

For More Information

We appreciate feedback on the Department's plan. If you have any questions or comments about the plan, or would like additional copies, we invite you to call:

Rick Bates at (306) 787-0114

Or Saskatchewan Environment's Inquiry Centre, Prince Albert (306) 953-3750,
toll free in Saskatchewan: 1-800-567-4224

Or visit us on-line at:
www.se.gov.sk.ca